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## NEW ELEVATOR AT NEW YORK.

New York City has a new elevator. In fact, it is a warehouse for storing flour, meal, feed, etc., as well as a grain elevator. It has recently been erected at the foot of Eleventh street, on the bank of the North River, for E. M. Van Tassel & Co., dealers in grain, flour, meal, feed, bran, etc.

The building, a cut of which is given on this page, is constructed of brick, and put together in a very substantial manner. The material used throughout the building is of such a character that it is as near a fireproof building as it is practicable to build elevators. It is nearly 100 feet long, 100 feet wide, and 80 feet high. The tower which surmounts the elevator is 30 feet high. The building has 37 bins, which have a total capacity of 300,000 bushels. The elevator is very conveniently located, and has a capacity of 5,000 bushels per hour.

This enterprising firm is composed of Mr. E. M. Van Tassel, the head of the firm, and Mr. C. B. Hillhouse. The former is one of the oldest and best known jobbers in New York City. He has been connected with the grain business over thirty years. The latter has also had considerable experience in the grain business, and at one time was in partnership with Mr. Day, the style of the firm being Hillhouse & Day.

## THE BOARD SUBMITS.

The Chicago Board of Trade has given up its fight against the bucket shops, at least it has decided to suspend all operations against them for the present. But it is very likely that the Board will try again to have the injunctions modified so that it will only be required to send out quotations every fifteen minutes, as soon as court convenes. By the last decision of the court in the case of the Board against the bucket shops, the privilege of doing this was denied, so the Board was compelled to do one of two things—to discontinue the sending out of quotations to any one, or else to send to all who were willing to pay for them. Although there was some opposition to this latter course by the members, the directors considered it the better step to take, and accordingly adopted the following resolution:

WHEREAS, The Supreme Court of this state lately decided that the Board of Trade of the city of Chicago may discontinue furnishing to the public market quotations, and in pursuance of this decision this Board did May 31, 1889, withdraw those quotations from 529 parties theretofore receiving the same, and which included all parties not members of this Board, except where pending injunctions prohibit such withdrawal; and motions were

thereupon made to dissolve said injunctions, but which motions were denied; and,

WHEREAS, This board subsequently, July 9, 1889, resolved to discontinue the business of instantaneous and continuous transmission of quotations and to substitute in lieu thereof periodical transmission of quotations at intervals of fifteen minutes; and thereupon moved for such a modification of said injunctions as to enable this Board to fully carry out said resolution, but which motions were also denied; and,

WHEREAS, To avoid an odious discrimination in favor of the parties who procured such injunction, it is just



E. M. VAN TASSEL & CO'S NEW ELEVATOR.

that, for the time being, at least until said injunctions be dissolved or so modified as to leave this Board at liberty to treat all parties alike and without discrimination, the quotations thus withdrawn should be restored; therefore,

Resolved, That the market quotations withdrawn May 31, 1889, be restored under the application and agreements under which they were granted, and under the same terms and conditions in said applications and agreements contained, and that the resolutions of this Board adopted May 14 and July 9, 1889, relating to market quotations, be repealed, but without prejudice to the right now claimed and insisted upon by the Board of Trade of the city of Chicago to control its market quotations, and to hereafter modify or repeal this resolution as in the judgment of the Board of Directors may seem expedient and proper.

## THE 1889 OAT CROP.

In a recent issue the *Farmers' Review* gave an estimate of the oat crop for the present year, its figures being based upon statistics furnished by its crop correspondents. In Illinois the acreage is 3,914,760 acres; estimated yield per acre, 34 bushels; total, 133,101,840 bushels, against 137,400,000 bushels in 1888.

Indiana—Acreage, 1,087,083; estimated yield, 34 bushels; total, 36,960,712 bushels, against 28,522,000 bushels in 1888.

Ohio—Acreage, 1,041,607; estimated yield, 33 bushels; total, 34,373,031 bushels, against 33,919,000 in 1888.

Kentucky—Acreage, 520,980; estimated yield, 25 bushels; total, 13,024,500 bushels, against 8,454,000 bushels in 1888.

Missouri—Acreage, 1,426,837; estimated yield, 33 bushels; total, 47,085,621 bushels, against 34,909,000 bushels in 1888.

Iowa—Acreage, 2,637,501; estimated yield, 40 bushels; total, 105,500,040 bushels, against 67,090,000 bushels in 1888.

Kansas—Acreage, 1,989,388; estimated yield, 33 bushels; total, 65,659,804 bushels, against 42,654,000 bushels in 1888.

Nebraska—Acreage, 1,105,910; estimated yield, 28 bushels; total, 30,965,480 bushels, against 26,177,000 bushels in 1888.

Michigan—Acreage, 827,346; estimated yield, 36 bushels; total, 29,784,456 bushels, against 26,688,000 bushels in 1888.

Wisconsin—Acreage, 1,483,796; estimated yield, 42 bushels; total, 62,319,432 bushels, against 42,768,000 bushels in 1888.

Minnesota—Acreage, 1,577,756; estimated yield, 25 bushels; total, 39,443,800 bushels, against 43,540,000 bushels in 1888.

Dakota—Acreage, 1,207,688; estimated yield, 7 bushels; total, 8,453,816 bushels, against 34,218,000 bushels in 1888.

Total yield for the above named states, 606,672,532 bushels. Assuming that the yield in other states will be equal to that of last year, or 156,487,900 bushels, the total oat crop of the United States will be about 763,160,432 bushels, or a gain of 61,425,000 bushels over the oat crop of 1888.

According to the recent report of the Iowa Agricultural Department the prospects are that the corn crop of the state will exceed the yield of any former year. Its condition is given as 101½ per cent. Although spring wheat has been damaged some, there will be a full crop. Oats will also give a heavy yield, and the crop will probably be the largest ever harvested. The condition is 106¾ per cent.





[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interests of the trade at large, or any branch of it.]

#### DULUTH HAS ANOTHER ELEVATOR.

*Editor American Elevator and Grain Trade:*—We have just finished our new No. 3 elevator, and now have a total capacity of 5,000,000 bushels. We are handling lots of wheat. Our new crop will be good.

Yours truly, A. J. SAWYER,  
Duluth, Minn. Pres. Duluth Elevator Company.

#### HAVE REMOVED.

*Editor American Elevator and Grain Trade:*—We have removed our headquarters from Yankton, Dak., and would like the AMERICAN ELEVATOR AND GRAIN TRADE sent to 40 Corn Exchange, Minneapolis, Minn., in the future.

Yours truly, ARCHER & HOWE.

#### READ IT WITH INTEREST.

*Editor American Elevator and Grain Trade:*—Inclosed find \$1 for our subscription to the AMERICAN ELEVATOR AND GRAIN TRADE, which we read with interest. We like its way of putting both sides of the grain question. It is important to us to get as clear views on the actual situation as possible.

Respectfully, CALLAHAN & SONS.  
Louisville, Ky.

#### FROM ST. PETERSBURG.

*Editor American Elevator and Grain Trade:*—Our company, which is the first in Russia, builds large grain elevators. Sometimes we are obliged to make inquiries about the construction of elevators, and would like to know if you could supply us with estimates and plans of plants and at what price.

Yours very truly,  
SOCIETY OF BRIANSK IRON WORKS.  
St. Petersburg, Russia.

#### INDIANA ITEMS.

*Editor American Elevator and Grain Trade:*—Mr. R. G. Risser and Warren McCray have purchased the Thomas Brown elevator property at Kentland, Ind., and will do a general grain business at Kentland under the firm name of McCray, Risser & Co. Mr. Risser is building an elevator at Raub, Ind., on the ground formerly occupied by Jacob Shonkwiler, whose elevator property was destroyed by fire last fall.

Yours truly, R. W.

#### CAN'T DO WITHOUT IT.

*Editor American Elevator and Grain Trade:*—I inclose one dollar for which you will please renew my subscription to the AMERICAN ELEVATOR AND GRAIN TRADE. I cannot get along without it.

The crop prospects were so poor in this part of the country for a time that I had almost given up hope of doing any business this year. But of late there has been a change for the better and the grain merchants of this district will have more to do than last year. Wishing you the best of success, I remain

Very truly, R. G. HUNTER.  
Chandler, Dak.

#### THINKS THEY TOOK TOO MUCH.

*Editor American Elevator and Grain Trade:*—As my subscription expired last month, I inclose one dollar to renew it. I am glad to know that the Lake Shore & Michigan Southern's system of abstracting grain from the farmers has been made public. To take enough to make good the loss in handling and from shrinkage is all right, but the farmers should have been notified. When one small station accumulates a surplus of over 9,000 bushels in one year, it shows that something is very wrong. The exposition of such steals as this prompts the farmers to form companies, build warehouses and ship their own grain, thus taking away the business of the many grain merchants all over this country. While it is usual to take a small amount for loss by shrinkage and handling, it is

not usual to take 9,000 bushels a year and say nothing about it.

I see Chicago wants the World's Fair, and I hope it will be held there. If they would just fence in the immense elevators they would have a great exposition and one beside which the corn, hay, wheat and crystal palaces which have been erected at different places would sink into insignificance.

Very truly, INDIANA.

#### PHILADELPHIA HAS A NEW GRADE OF WHEAT.

*Editor American Elevator and Grain Trade:*—Our Grain Committee, at a meeting held July 15, adopted a new grade of red winter wheat, to be known as "No. 2 Pennsylvania Red Winter Wheat." It is proposed to put into this grade all red winter wheat of the long-berried variety the quality of which is better than No. 2 red and not quite good enough for the grade of No. 1 Pennsylvania. This class of wheat will bring about 2 cents per bushel premium over No. 2 red in our market. Inclosed please find \$1 to renew my subscription to the AMERICAN ELEVATOR AND GRAIN TRADE.

Very respectfully, JOHN O. FOERING,  
Philadelphia, Pa. Chief Grain Inspector.

#### A CORRECTION.

*Editor American Elevator and Grain Trade:*—The July number of your journal conveys a wrong impression in regard to the refusal of the St. Anthony Elevator Company to pay taxes on wheat stored in their elevators. The St. Anthony Company did not object to wheat in store being taxed, they objected to being taxed for the value of wheat stored with, but not owned by them, and for which elevator receipts had been issued.

Investigation showed that personal tax assessments for wheat owned by millers and grain merchants covered the full amount of taxes expected to be received from the business. The St. Anthony Elevator Company do simply a storage business, and in this case the grain had been delivered before the notice of assessment was received by the company.

Yours truly, T. C. METCALFE,  
Supt. St. Anthony Elevator Company.

#### DEFENDS THE LAKE SHORE COMPANY.

*Editor American Elevator and Grain Trade:*—In your July number, under the head "The Scales were Doctored," I see you criticize the Lake Shore & Michigan Southern Railroad quite severely for what might seem stealing. I was surprised to see such a statement made in your valuable paper, and believe you published it without giving the matter much, if any, thought.

I was employed by the Lake Shore company at one time to look after their scales, and my instructions were to make everything correspond with the United States standard weights, with which I was provided, and to report to the general office of the company all agents and employes who failed to weigh correctly, or any I found tampering with the scales. When grain is delivered to any station on their line the railway company give warehouse receipts for the same and thus become absolute owners of the same, and must deliver pound for pound so receipted for. They make no charge for storage at way stations.

Now will you say how the railroad company is going to be reimbursed for the loss on grain in dirt, handling and shrinkage? Certainly the freight rates at the present time are not high enough to pay them for taking in the grain and leave them any recompense for becoming responsible for damage by fire and other causes and loss in handling. It has been the practice for the last twenty years to take the amount mentioned from each wagon-load, and it was generally known by every farmer who delivered grain to the company's stations and no complaints were ever made before.

It is the rule and not the exception that way stations are short instead of over when they clean out, and when short the agents must lose it, and if over they get credit for it. This is as it should be. I don't believe that the officers at the head of the company, or any one in authority, connives to defraud the public in handling the grain of that section. All they want is sufficient weight to come out even, and that is the practice everywhere, at all grain markets. It seems to me that the party who was discharged was trying to make the public believe that he was unearthing a great big colored individual in the woodpile.

I have looked after scales and discrepancies in weight

for railroads and elevators for more than twenty years, and I have never known of other instructions being given than to make the scales just right and report all shortcomings to the proper officers. There is a loss in handling grain. The amount reported as taken is not in excess of what it ought to be. It is the practice everywhere, and if this is not satisfactory the Inter-State Commerce Commission will have something to keep them busy for some time to formulate a plan that will be more just to both farmer and shipper.

I am not now employed by the railroad company, and am not personally acquainted with the management, but am acquainted with their mode of doing business. I write you this thinking you have been led to believe a great wrong had been done.

Yours respectfully, SCALE EXPERT.  
Minneapolis, Minn.

#### FROM ST. LOUIS.

*Editor American Elevator and Grain Trade:*—Please find inclosed two dollars, for which please send a copy of the AMERICAN ELEVATOR AND GRAIN TRADE to my brother, E. E. Harrison, at West Liberty, Mo., for one year, and a copy to the undersigned. My brother was in the city when I received the sample copy you sent, and after perusing its contents we came to the conclusion that if every number was not more than half as good as the sample, no one connected with the grain trade could afford to do without it.

There is much talk of a syndicate buying up the elevators at this place as well as at Minneapolis, but of course it is impossible to tell what will be the outcome. Can it be that "Old Hutch" is at the head of this syndicate and wants to store the wheat crop in his own elevators as soon as it is harvested?

St. Louis grain dealers will do more business during the coming year than they have for several years. There are several reasons why this should be so. First, Kansas has better crops than for four or five years; the elevator combination at this point has greatly reduced storage rates, and it is thought by some that state inspection of grain, if the law is enforced, will be instrumental in drawing more grain to this city. The establishment of the new transportation company to run boats between this city and Central and South American states will also be beneficial to the grain trade of this city. Our commission men recently formed a receiver's and shipper's association which will undoubtedly bring more trade to the city. Then, too, there is Oklahoma, which will soon produce vast quantities of grain, and of course most of it will be marketed in St. Louis.

While the grain trade of this city may never equal that of Chicago, still the prospects are excellent for a large increase during the next five years.

Yours truly, J. C. HARRISON.  
St. Louis, Mo.

#### EUROPEAN CONSUMPTION OF CORN.

A correspondent of the Chicago Tribune, writing from Nebraska, says a Liverpool grain merchant who has been visiting this state states that the consumption of meal in Eastern Europe by the bread-eating people increased 300 per cent. during the year 1893, and consumption is on the increase. Should America raise a bountiful crop of corn this season, and the same can be laid down in Liverpool at 48 to 50 cents per bushel, the demand will be so great that it will require all the tonnage out of New York. Low-priced bread is what the laboring people of Europe want. In fact, he states that all wheat-producing sections will feel the effects of the demand for American corn. The increase of the yield of wheat in France and Great Britain is so large that the Pacific states and India will supply any demand for wheat these countries may require.

The gentleman stated that the export trade in wheat from the Atlantic states had been killed by speculators. The people of the West will hail with joy the time when corn is established as king of breadstuffs. No country can compete with America in corn. I trust the statement of the Englishman is correct. The French Exposition will do much to facilitate the introduction of corn, and should be assisted and encouraged by every American visiting France.

According to the report of the Department of Agriculture the total acreage of corn is over 77,000,000 acres. Last year 75,673,763 acres were planted to corn.



Written expressly for the AMERICAN ELEVATOR AND GRAIN TRADE.]

## THE GRAIN SITUATION.

WINTER WHEAT HARVEST OVER; HAS BEEN MORE OR LESS DELAYED BY WET WEATHER, ALTHOUGH THE CROP HAS NOT BEEN SERIOUSLY DAMAGED, EXCEPT IN SOME LOCALITIES—THE YIELD AND QUALITY FULLY SUSTAIN ALL PREVIOUS REPORTS—THE DEMAND FROM MILLERS HAS BEEN EXCELLENT—THE MOVEMENT PROMISES TO BE FREE DURING SEPTEMBER—CORN SITUATION, GOOD CROP WITH LATE FALL, WITHOUT ANY FROST—AN IMMENSE CROP OF OATS—VERY CONFLICTING REPORTS WITH REGARD TO THE SPRING WHEAT SITUATION.

BY S. THORNTON K. PRIME.

### No. VIII.

The rains which have done so much the present season to make and unmake the growing crops, practically ceased after the opening of August, and the first half of the present month has been unseasonably cool and dry.

The Signal Service tells us that in Michigan, Illinois, Missouri and Iowa the cool nights were unfavorable and retarded the growth of the corn and the crop at the present time stands much in need of warm weather. The weather crop bulletin for Illinois says, "that the temperature has been below a seasonable average throughout the state and has affected the corn crop unfavorably."

On the other hand the government report at Washington shows that the August returns of condition have not stood more than one point higher during the past nine years. The present returns have been equalled but three times during that period.

Certainly there is a very wide difference of statement in the Signal Service report and that of the Department at Washington. I have watched the corn crop this season with more than usual care from the date of its planting up until the present time, and I find that these are the surroundings which have come under my observation and which I have gleaned through thorough correspondence day by day up to the opening of the present week.

This certainly has been a very fine season for small grain, as the winter wheat harvest and the oat harvest have developed. Furthermore, it is equally true that we have had a very poor corn year and the success of the crop now depending entirely upon a late fall.

It is also true that we planted our corn this season very early, but it had no sooner begun to grow than the rains began to fall and a low degree of temperature all through the corn belt has been the predominating feature the present season. The crop this season has not had the usual amount of cultivation, and my idea is that our rains have been of such a character that they have pounded the ground so hard that this has done more to keep the corn from growing than any other factor which has worked against it since corn was planted.

These characteristics which I have stated somewhat in detail apply to Illinois, Ohio and Indiana, in Iowa the conditions are somewhat better. In Kansas and Missouri they have had very wet weather all the season, and corn has been further advanced than in any other states in the corn belt.

The prospects for corn in Nebraska are good. These states comprise the great surplus corn states of the country, and throw out Kansas and Missouri and I think it perfectly safe to say that while a portion of the crop might mature by the 15th of September, yet a frost at any time before the 1st of October would give us a large percentage of soft corn.

All things considered, without frost I look for a crop anyway from fifteen hundred to seventeen hundred million bushels. The large receipts of corn still show how much old corn there is left in the country.

The trade never have taken into consideration the fact of what a vast saving the mild winter and mild spring made of the corn crop of 1888. I think that we will see all summer, and particularly if the fall should be late, these receipts keep up in volume much larger than in an average season.

### WINTER WHEAT HARVEST.

The conditions which have surrounded the winter wheat harvest have been perplexing, harassing and tedious. Rains have been incessant up until the opening of the present month, consequently the wheat threshing has been greatly delayed, and a large proportion of the crop so far which has been handled has been damp and unfit for milling.

There has been quite a large movement, however, from

farmers' hands which has gone into home and local consumption. Probably a new crop year seldom, if ever, opened when supplies of the old crops were as exhausted and such an excellent demand existed for the new crop as we have witnessed during the last thirty days. A much larger percentage of the crop has gone into stack than usual. During the last ten days, however, there has been a very general improvement in the weather conditions of the winter wheat belt. Threshing has progressed with uniformity and no interruption from wet weather. Yet the receipts at grain centers have not materially increased, all of which goes to show that the home demand for the new crop has not been satisfied.

After the country mills are supplied I think farmers will be free sellers, and that the month of September will give us, irrespective of prices, a good movement of wheat at our large grain centers.

In Southeastern Kansas millers have been free buyers of the first threshing, but do not care to store damp wheat. Shippers are buying all the good wheat offered. Millers will be very free buyers as soon as the wheat grades dry enough again.

In Southern Kansas fully seven-eighths of the wheat this season has gone into stack. This was on account of the great amount of rain which fell. Farmers seem to have got scared, and stacked their wheat as soon as possible.

The weather is better now. Threshing is progressing favorably. The demand from millers is likely to continue for some time.

In Northern Kansas a much larger proportion than usual of the wheat has gone into stack. Threshing has progressed rapidly for the past week. Prior to this but little was done on account of showery weather. The demand from millers is good, but farmers have not been free sellers. The milling situation seems healthy.

Reports from Central Kansas say that the wet weather damaged wheat a great deal, particularly that which was left in the shock. The amount received from farmers during July was unusually small. In fact, the receipts have not been large enough to keep local mills running. The market would only justify 55 to 56 cents. At 60 cents farmers would sell freely.

Reports from Eastern Missouri show that they have made one of the largest and finest crops of winter wheat ever produced. Fully half of the wheat was stacked; the balance threshed out of the fields. In many instances the crop has gone forty bushels to the acre.

In Northwestern Missouri a large miller there says that this is one of the best crops he ever handled. Comparatively speaking, there has been but little threshed yet, as the great bulk of the crop is in stack, and consequently will not come onto the market as it otherwise would have done. The movement will be quite gradual this year, as the millers have been taking so far a large percentage of receipts.

Northern Ohio has not done much threshing so far, but the yield and quality justify former predictions. A much larger percentage of the new crop has gone into stack than usual. The milling demand is good, but at current prices—73 to 75 cents—there will not be much sold over immediate wants.

Southern Ohio reports that they get but little damp grain; that the quality and quantity of the wheat is much above the average. The demand from local millers is poor, but the demand from Eastern millers has been very good. A fairly good trade for flour is looked for this fall, but it will have to be done at very close figures.

Reports from Northern Indiana are nearly all for a larger yield than expected at harvest, running all the way from ten to thirty-five bushels per acre. Fifty per cent. of the wheat was stacked. That which was left in shock was more or less damaged. Present prices will make a free movement of wheat as soon as it is dry enough to market.

In Southern Indiana threshing has been greatly retarded by rains. Wheat has not been seriously injured, however, so far. Millers at Evansville and Mt. Vernon have been very free buyers of wheat, and the milling demand at present is good.

There has been a very good demand for dry wheat among the millers of Illinois, and in fact the supply has not been adequate to the demand. This state of things, however, is now being changed for the better.

The weather has been such during the last ten days that the wheat is grading, threshing progressing favorably, and farmers seem inclined to accept present prices rather than wait for the uncertainty of a rising market.

A much larger percentage of the crop this season has

gone into stack than usual. This has been on account of the long-continued bad weather.

Southern Michigan reports that the wheat is now generally all in stack in good order. Threshing has begun, but there is yet but very little wheat moving.

The millers' demand has been very large, particularly for the old crop. Quite a large percentage of the new crop has threshed out No. 3 and 4 on account of its being shrunken. A free movement of wheat is looked for in September, or after seeding.

Farmers have been very backward about selling. Prices have been ranging at from 70 to 72 cents.

Tennessee and Kentucky, and also Texas, have probably suffered more from wet weather during harvest than any other states in the winter wheat belt. Reports from Southwestern Kentucky say that fully 50 per cent. of the wheat crop has been damaged by wet weather, and much of it sprouted, and not 25 per cent of the new crop has threshed out in good condition.

There is an excellent demand for dry wheat and at good prices, but those having dry wheat are disposed to hold.

All through this report, which covers the winter wheat situation, we find a connected, harmonious chain of facts. Linked together they show first that harvest has been hindered more than usual by wet weather. That a larger per cent. than usual of the crop has gone into stack, that the damage so far has not been of a very serious nature, that an unusually good demand exists at home for the new crop and that the milling situation on the whole is better than it was a year ago at this date. Not only does it seem that the old stocks of wheat are exhausted but I find also that stocks of flour have been unusually low.

### OATS.

To the country at large, or the trade, or producer, or the consumer, it makes very little difference whether the country has made this season seven hundred or eight hundred million bushels of oats. We have made enough to depress the price to such an extent that in Kansas and Nebraska oats are selling from 10 to 12 cents a bushel.

In Iowa from 16 to 18 and in Illinois from 17 to 18 cents. How long farmers can grow oats at those prices is food for thought as well as for horses. We certainly have grown an enormous crop of oats, averaging probably from thirty-five to forty bushels per acre the country over. It has been subjected to very severe trials since cut. The heaviest rains of the whole summer poured upon the oat crop, and it is more or less stained in every state where oats are made a leading crop. Farmers are putting oats in stack this season to a greater extent than they have at any time during the last three or four seasons. There does not seem to be any prospect of oats bringing any better prices on this crop than are ruling at present.

### SPRING WHEAT.

With the conflicting reports which are flooding the country at the present time, growing larger and larger every day, it seems almost utterly folly to attempt to measure in quantity how much wheat Minnesota and Dakota have made this season.

The best observation and information I can get leads me to believe that Minnesota will raise a good fair crop, and less than half an average crop in Dakota. I believe also that the early drouth injured the wheat to such an extent that it never recovered.

The wheat is now all cut, going into stack and threshing just commenced. The quality of the crop promises to be excellent and the movement free, irrespective of prices.

Mr. S. W. Allerton of Chicago, who owns considerable land in Piatt county, Ill., has offered a prize of \$500 for the best 100 acres of corn raised in that county. Another prize of \$50 is offered for the best 30 acres. Twenty-nine persons have entered for the larger prize, some of them being Mr. Allerton's tenants. The object is to develop the best method of producing corn. Each competitor is required to report the work and expense put on the crop.

The State Department at Washington has recently received a very exhaustive report upon Russian agriculture and the grain trade from Charlton H. Way, United States Consul General at St. Petersburg, in which he says the export of cereals from Russia in the past two years show an abnormal increase, due in part to the foolish practice of systems of "corners" in the United States. "The arable lands of Russia in Europe," Mr. Way says, "excluding Poland, cover an area of 450,000 square miles."



## KING CORN'S PALACE.

Sioux City, Iowa, the city famous for its corn palaces, is to have another palace this year, and it is proposed to build one that will surpass all that have been erected in the past. The building will have a frontage of 240 feet and a depth of 120 feet. The principal entrance will be in the center of the south facade, and will be covered by a wide open portico two stories in height, the roof of which will form a terrace opening from the third story balconies.

Back of this portico will rise a large square tower 200 feet in height, and on each side of it will be smaller towers with pinnacles and ornamental balconies. These balconies will be connected with the different stories of the small towers by light bridges. The angles of the towers will be connected with the slender buttress piers at the corners of the main tower terrace by flying buttresses.

Passing inside, at the back of the tower framing will be a large music or amusement stand or stage, with the ceiling open to the roof, and covered with a large fan-like sounding-board. At the sides of this stand, and extending well in front, will be two large open spaces. These are the main wings of the building, with a combined floor space of 8,000 square feet. Around these open spaces, the booths and sections for exhibitors will be arranged. Over the booths will be a wide balcony, extending around three sides of each wing and connecting with the second story of the tower, which will directly face the amusement stand, and be devoted to the refreshment features of the palace. There will be no "Parisian loges" on this floor, the architect says; but it will not be surprising if he should take advantage of the central tower and hang out a few at a higher level. A feature of the design is the wide balcony in the west end. Wide stairways will extend from the main floor to the balconies at each side of the tower, easy of access and ascent, and affording ample exit.

The building would not be a corn palace were it not for the decorations. Its general style will adapt it to the graceful forms and brilliant tints of the corn products of the region as well as any that could have been selected; and while the decorations will start with a full-grown American flag, 220 feet above the ground and numerous bits of bunting will be unfurled lower down, the main covering and enrichment of the structure will be grains and corn in all their obtainable forms. The design for the interior contemplates a more complete preparation for the decorative work than has been attempted before, and the hammer and saw will not so often be called into requisition, whereby the arduous work of the ladies' corps will be much reduced. A prominent feature of the design is the elevator running to the 100-foot elevator of the main tower, where a large refreshment room and wide terrace supply a substantial motive for a somewhat airy flight. Above this easy stairs ascend to the 160-foot level, and to a hanging balcony 150 feet from the ground. The general style of the building will be composite, with a strong leaning toward the "corn palace idea." The openings in the exterior walls will be symmetrically arranged, generally with arched tops. Those in the first story will be separated by slender columns with Oriental capitals, that arrangement admitting the maximum of light to the booths inside.

Kansas has raised about twenty-four bushels of wheat to every man, woman and child in the state this year. That settles the bread question, and it seems as if we might all rustle around the balance of the season enough to get the water.—*Marion Record*.

Workmen engaged in making excavations in Chicago on the site occupied by Armour's Elevator B before the great fire of 1871, recently discovered an ancient pair of track scales held together by an old fashioned chair fastening, and near by were found several pockets of granulated charcoal, which upon being examined proved to be burned wheat. The form of the kernels was perfectly preserved. It was expected that considerable would be unearthed before the work was finished, but as nothing more has been heard of the burned wheat, it may be supposed that Old Hutch has cornered it.

## THE ELEVATOR SYSTEM OF THE NORTHWEST.

A few years ago a certain Russian gentleman, representing certain important interests in his country, made a trip through the Northwest to investigate our railroad and wheat elevator systems. He found much that was of advantage to him, and various Northwestern ideas are being carried out to some extent in the great wheat-producing regions of Russia. A well-known miller recently remarked that the producers and handlers of wheat in this country may expect to soon be subjected to a greater competition than they now have from the wheat-producing regions of Europe and Asia, from the fact that our system of handling wheat is sure to be copied and is being copied to some extent already. Until very recently such a thing as an elevator was not thought of in those countries. The wheat was handled in a very primitive way and with corresponding loss to the producer. Something like it might have been seen in this part of the country in former days, when the grain was hauled in



KING CORN'S PALACE AT SIOUX CITY, IOWA.

bags down to La Crosse, Wis., where was probably one of the first grain elevators in the Northwest.

The recent facts that have come to the knowledge of the public through the newspapers relative to the overtures of an English syndicate to purchase the line of elevators of one of the Minneapolis companies are of a nature to set one to reflecting on the enormous development of the elevator system of Minnesota and the adjoining states during the past few years. To be sure, there were elevators in Minnesota as soon as there were lines of railway, but the system of elevators as now organized is a thing of very recent growth. It is peculiarly a Northwestern institution, and one of the most interesting of the big things in this part of the country. And its sudden growth is one of the most remarkable features of it. A few years ago in the grain and flour trade of this city and section there was but one element that had any standing, and that was the milling business. But things have entirely changed, and since that time the elevators have come to the front, and their interest is now about as strong and influential as that of the millers. Down at the Chamber of Commerce there are three classes that monopolize business—the millers, the elevator men and the commission men. Now the millers have always attracted the most attention, and it is possible that there are many who do not realize the standing that the elevator men have acquired under the new order of things.

These elevator companies that have their headquarters in Minneapolis reach out along the lines of the different railroads, two of them extending to the Pacific coast. The principal territory covered is Minnesota and Dakota, but Northern Iowa and Northeastern Nebraska is also taken in. One of the largest of these companies will

carry some three million bushels of wheat, which will represent a cash value of something like \$1,500,000. When the cost of the plant is considered in addition to this, it will be realized that one of these elevator companies is a big thing. There are some fifteen of them in all. Previous to the development of the elevator companies the millers had to buy their wheat more direct from the producers. The Millers' Association went out of existence when there was a surplus of wheat raised in the Northwest over the amount needed for local milling. The elevator companies, which began to receive their real development about nine years ago, absorbed the business of the Millers' Association. The new arrangement is a great advantage all around. The two concerns whose lines reach out to the Pacific coast are the Northern Pacific Elevator Company and F. H. Peavey & Co. Minneapolis is the center, of course, of the whole business.

The country elevators have a capacity of 45,000,000 bushels, while those of Minneapolis alone have a capacity of 13,000,000. Duluth has a capacity of about 20,000,000, but handled of the last crop only 5,500,000 bushels, while the Minneapolis elevators have handled thus far some 38,000,000 bushels. The sum total is swelled somewhat by the two elevators in St. Paul and those at Portland. The amount of wheat in these elevators is reported all over the world once a month, and this forms an important factor in prices. The elevators now have only about 450,000 bushels of wheat, the least amount they have had for six years. They are in fact considered comparatively empty. This is due to the very light crop of last year. The production of Minnesota and Dakota in 1888 was from 70,000,000 to 75,000,000 bushels, while this year it is expected to run from 80,000,000 to 85,000,000.

Some of these elevator buildings are among the largest in the world. The largest elevator in Minneapolis has a capacity of 2,500,000 bushels. The system now employed is said to be the finest in the world. In truth there is no other that can compare with it in immensity and completeness of organization. The individual companies are strong and wealthy, and it was stated yesterday by one who was in a position to have inside facts, that they not only have the most thorough organization in the instance of each company, but they have a sort of common organization. At least there is a committee of elevator men that sits in Minneapolis and directs every change of prices for every elevator in the entire system. The price at Minneapolis is made the basis, and the agent or secretary of the committee can readily figure out the prices to be paid all along the line. Of course in such an immense region only the most perfect system would be adequate to the demands.

President C. M. Loring of the Chamber of Commerce, estimated that simply by their celerity in the handling of the wheat there is a saving of six cents a bushel, and every cent of this goes to the farmers who produce it. The country elevator system is a great thing for the railroad companies, who can thus distribute the shipping business through the year. The railroad facilities are still very inadequate in the rush of the season. It is no uncommon thing to find from fifteen hundred to two thousand loaded cars in the busy season waiting for railroad and elevator facilities for unloading them. The blockade was so great last fall that cars loaded with wheat got lost, and their owners were looking for them from thirty to forty-five days before they were successful. Such are some of the facts concerning the great elevator lines reaching out from Minneapolis.—*Minneapolis Pioneer Press*.

A farmer of Willow, Cal., planted his second crop of corn June 23, using seed grown this year.

According to the Cincinnati *Price-Current*, the United States exported during the cereal year ending June 30, 89,000,000 bushels of wheat and wheat flour. The preceding twelve months 119,625,000 bushels were exported, and for the cereal year ending June 30, 1887, 153,805,000 bushels were exported. During the cereal year of 1885-'86, 94,565,000 bushels were exported; in 1884-'85, 132,570,000 bushels; 1883-'84, 111,534,000 bushels; 1882-'83, 147,811,000 bushels; 1881-'82, 121,892,000 bushels; 1880-'81, 186,321,000 bushels; and in 1879-'80, 180,304,000 bushels were exported.



## THE JOHNSON & FIELD DUSTLESS SEPARATOR.

We give on this page two illustrations of the dustless separator, manufactured by Messrs. Johnson & Field of Racine, Wis., well known to the milling and grain-handling public as makers of grain-cleaning machinery. This is a single dustless separator, which they first commenced building at the beginning of this season, and which they are having a large call for, although it has been but a very short time before the trade.

As the practical reader will see from the illustration, it is built very heavy and strong, insuring a very important advantage, that of durability. The irons and all portions of the machine receiving the greatest strain and wear are correspondingly heavy, and constructed after the most approved patterns. The shaft is two inches in diameter and revolves in babbitted self-oiling boxes, creating but little friction, and in consequence requiring less power to run it than if these arrangements were of a less satisfactory nature. It is also provided with very heavy eccentrics and shaker connecting rods. It has a shake elbow which is so arranged that the shoe can be given a very short, quick shake, which, with the assistance of strong blast on the sieves, proves very efficient in removing chaff, foul seeds, etc.

Attached to the machine is a suction fan, which is powerful enough to very effectually remove all dust, straws and light stuff, discharging same in dust box, and preventing the nuisance of having the house full of dust, as is the case with many separators, even some of those which are claimed to be "dustless." It is seen by the reader familiar with separators that this machine possesses many important advantages, one of the principal being that a strong blast is applied to the sieves, so that, as the grain passes over same, oats and other foul stuffs are held up and carried to the rear of the machine, in this way effectually extracting these troublesome impurities in a manner not to be attained in machines with less perfect arrangements.

Another advantage claimed is that this separator is constructed with a side shake, which enables the manufacturers to use shorter sieves and still have the same capacity; this is also an improvement, as it is a well known fact that impurities in grain or seeds are much more liable to drop through in passing over a long sieve than in passing over a short one, and consequently remain in the grain instead of being carried out behind. This separator has a capacity of from 200 to 400 bushels per hour and upward, according to size, and does excellent work, satisfying the most exacting. It does equally as good work in cleaning seed as grain, and is claimed to be the most economical machine for all purposes.

A large number of these machines have been sold in the West and Northwest to elevator, grain and seed men, where they have given excellent satisfaction. A year or so ago one elevator company at Minneapolis purchased forty-four of these machines, with which they express the greatest satisfaction.

The No. 4 machine has proved especially popular, and a good many orders have come from foreign countries after a sample machine has been seen and its work inspected. For a horse power machine the manufacturers lay special stress on the points of strength, durability and good work.

They offer to send these separators to any parties wanting such a machine as is here described, and guarantee satisfaction. We would advise our friends among the grain men and millers who desire to learn more about this separator, to write to MESSRS. JOHNSON & FIELD, Racine, Wis., who, we have no doubt, will be very glad to give prices and full particulars promptly on application.

A Kansas editor says that 60,000 railroad cars will be required to haul the wheat crop of his state.

## WHY THE RAILROAD AND WAREHOUSE LAW IS NOT ENFORCED.

No one thinks there is any wholesale dishonesty in our elevator system. There are many safeguards against robbery. There can never be a repetition of the disgraceful Munn & Scott affair of many years ago. Chicago is probably well guarded from any such swindle as has just transpired at the Buffalo elevators.

But much as has been accomplished in the way of official inspection since the days when Munn & Scott could fill a whole elevator with false-bottomed bins and have an official investigator declare there was grain enough to meet all outstanding receipts, as many guards as have been put up to prevent another such attempt to "expand"

the law is uniformly disregarded by every carrier." "Why doesn't the shipper see that it is enforced then?"

"That is where the railroads get in their fine work. If the law were enforced it would mean that the roads would have to exercise the same caution in handling the grain business that they do in shipping other merchandise. It would mean that they must deliver at the end of the route the amount of grain which had been consigned to them. It would mean that the loss from leaky cars and from the carelessness of employees must be borne by the corporation which allowed the waste, and not by the innocent shipper. Knowing full well all it would mean the railroads have decided that it must not be enforced. Some persons might think such an undertaking a difficult one, but a combination of railroad officials know how to get

around some sharp corners with ease that would astonish other people. Their method in this case might be called by so hard a name as a 'conspiracy,' if railway officials were ever guilty of such action.

"They set about it in this way. When the small shipper, who has long suffered and thinks he sees in the law a relief, he demands that the station agent give him a bill of lading for the exact amount of grain which he has consigned to the railroad. The station agent of course declines. He has no authority to give anything other than the prescribed printed form. The general freight agent is appealed to. After the usual delay, which is the fate of railroad complainants—a delay which will probably see the crop sown in the springtime grow golden and be harvested and carried to market—after this usual delay the shipper receives a call from some one representing the railroad, and this is always the result:

"'You want us to go to the expense of putting in scales, do you? You object to taking such weights as you may happen to get in Chicago after we have rattled your grain over a few hundred miles of track in leaky cars? So sorry. O, yes, you can have what you ask for if you insist on it. You clearly have the law to force us. But if you do force us'—and here comes the strong point which every road instructs its men to make prominent—'if you do force us you will find how uncomfortable it is possible for a railroad to make a shipper of grain and still keep within the law.'

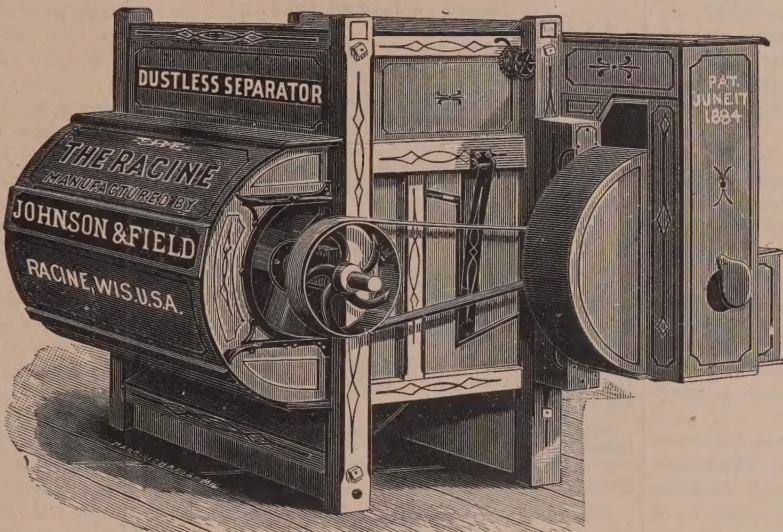
'Mr. Shipper knows what that means. He has probably had some experience before. He knows that so far as he is concerned there will always be a shortage of cars, that his shipments will be delayed—that in a hundred ways the company can neglect his needs and enforce their rules so that he will be placed at a disadvantage. It doesn't take long for him to conclude he does not want the company to put in scales for his benefit, and that a way-bill which put the company under obligations to deliver as much grain as they received was not at all desirable.

"But they go to greater lengths. There was a chance that the Board of Railroad Commission might enforce the law. So they were petitioned not to. The petitions were originated by the railroads and signed by the shippers, coerced by the same arguments by which they had been induced to abandon trying to enforce the law themselves. One might be curious about the status of a petition to state officers asking them to refuse to enforce the laws which they had sworn to enforce, but the effect of the petition at least was satisfactory to the roads.

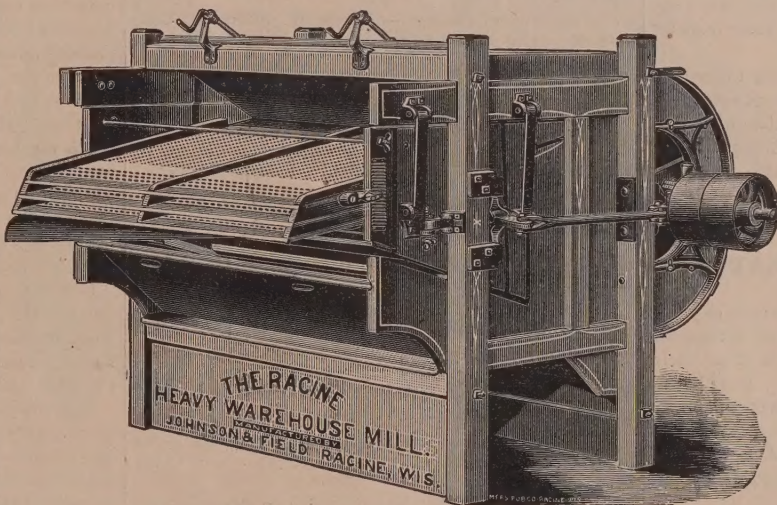
"We have another law which is as explicit as language can make it, saying that every car of grain which goes through Chicago shall be weighed in hopper scales. Three of Chicago's twenty-seven roads are provided with hopper scales."

Practically the whole grain weighing business is done on track scales. A track scale is a trick scale. It is most inaccurate.

So much for what may be charged to the railway companies, but if all these abuses were corrected there would still be an opportunity for missionary work. It has always been the custom of the elevators when weighing



THE JOHNSON & FIELD DUSTLESS SEPARATOR.



THE JOHNSON & FIELD DUSTLESS SEPARATOR—SIEVE END.

the grain business, there is still plenty of unfinished work in the same direction. There can be no spiriting away of shiploads of grain, but there are still holes through which may dribble good-sized cargoes.

Our system of weighing is admitted by every one to be inaccurate. Inaccuracy is a serious enough thing to charge against so important a department of such a great business. Every accidental error, every variation in result from the shipper's belief as to the weight of a car, every complaint, whether with any foundation or not, is apt to be attributed by the shipper to unfairness in the Chicago market. The Chicago grain market is not in such a flourishing condition that it can afford to pay no attention to such imputations, and no one should be more active in correcting unsatisfactory methods than the grain receivers.

"The trouble is," said a large grain receiver recently, "that our laws are not enforced. We have a law which requires the railroads to accurately weigh all grain received for shipment, give a receipt for the same and deliver the full amount. The law goes farther and provides that all stations where 50,000 bushels or more are shipped annually, the railroad company shall put in scales for weighing the grain. The law as it stands covers every point needed for complete protection of the shipper, and



grain in to take "toll" to the amount of—well, of enough. Their excuse for this is that grain shrinks by handling and drying, and it would not do for them to give receipts for more grain than they can weigh out of their elevators again. There may be a question of whether they should not, after receiving a good price to cover all the risks of storage, return to a pound the amount of grain intrusted to them, but there can be no question that if they are to take "toll" in this way the toll shall not exceed the actual decrease while in store.

"How much do the elevators take to cover this short age?" was asked Maj. Burst.

"I cannot tell," he said. "It is safe to say they take enough. I believe the elevator men here are as honest as it is possible to be under the present system, but where such a practice as this is carried on without any supervision the weighers are not likely to take too little."

It may be said that it is impossible for elevator people to take in more grain than they issue receipts for, because after they got it in they couldn't get rid of it again under the law which prohibits a bushel of grain being taken out till a corresponding receipt is canceled. That would be an effective safeguard if the registrar had any way of knowing that not more than 1,000 bushels were taken out when a 1,000-bushel receipt is canceled. But he hasn't. He only can take the figures the elevator people give him.

"If a state grain inspector had the same authority in an elevator as a United States inspector has in a bonded warehouse he would then be effective in checking any abuses or detecting any fraud," said Maj. Burst.

The practice of the railroads in the matter of bills of lading affects the Chicago shipper even more seriously than it does the Western country shipper.

The man who ships grain to Buffalo or New York must take the weight at the terminus of the route. That weight may and often does vary hundreds of pounds from the railroad weight given when the same car was received in Chicago from the West. There is little ground for suspicion of anything but inaccuracy in Chicago weights. There are also the best of reasons to believe the New York and Buffalo weights are at some elevators worse than inaccurate.

Here is plainly something for the Inter-State Commerce Commission to take a hand in. It is important enough to be worthy of their attention. They appreciate it, too, in a measure. The matter has already been brought to the notice of Judge Cooley, and it is probable the whole question will soon come before the commission.—*Chicago Tribune*.

## NEW ELEVATOR AT MINNEAPOLIS.

F. H. Peavey & Co. are building an immense elevator plant at Minneapolis, which will be used as a terminal elevator to take care of the grain shipped in from their houses on the line of the Omaha Railway. It will consist of two separate buildings about 225 feet apart and between them will be established a power plant. The power plant will be furnished by E. P. Allis & Co. of Milwaukee, Wis., and will include two 18x36 Reynolds-Corliss Engines.

The larger structure of the two will be used principally for storage. It will be 68 feet wide by 408 feet long, and will be divided into two parts—a storage part and a working part. The storage part will have 120 bins 68 feet deep and there will be 38 more bins in the working part. Its total capacity will be 1,500,000 bushels. It will have four receiving legs and two cleaning legs. The machinery will include four warehouse separators and four large conveyor belts. Two of these belts will be used for filling and two for emptying the bins.

The other house, which is intended more for cleaning and handling grain, will be 52 feet wide and 120 feet long. It will contain 68 bins, all of which will be 52 feet deep. It will have three receiving legs and three cleaning legs, six grain elevators and six 1,000-bushel scales.

The entire plant will be equipped with the latest and most approved machinery, and both elevators will have a passenger elevator, automatic sprinklers and other protection against fire, and electric lights.

Messrs. Barnett & Record, the well-known architects and builders of grain elevators, of 37 and 38 Corn Exchange, Minneapolis, Minn., have the contract for the plant.

The *Country Gentleman* predicts that "the buckwheat crop will take the lead in a few years in the Middle and Eastern states as the best paying crop."



### Issued on July 16, 1889.

**BALING PRESS.**—John H. Gardner, Dalton, Ga., assignor to J. E. Sanders and Seid Waddell, both of Union City, Tenn. (No model.) No. 407,290. Serial No. 800,886. Filed Feb. 23, 1889.

**GRAIN SEPARATOR.**—John R. Beynon, Watertown, Wis., assignor of one-half to James B. Murphy, same place. (No model.) No. 407,052. Serial No. 293,259. Filed Dec. 11, 1888.

### Issued on July 23, 1889.

**BALING PRESS.**—Zachariah J. Anderson, Fort Worth, Texas. (No model.) No. 407,315. Serial No. 299,769. Filed Feb. 13, 1889.

**CORN HUSKER AND SHELLER.**—Louis R. Whiting, Dallas, Tex. (No model.) No. 407,710. Serial No. 279,494. Filed July 10, 1888.

**CORN SHELLER.**—Asahel H. Patch, Clarksville, Tenn. (No model.) No. 407,549. Serial No. 306,990. Filed April 12, 1889.

**GRAIN SCOURER.**—Giles S. Cranson, Silver Creek, N. Y. (No model.) No. 407,578. Serial No. 306,883. Filed April 11, 1889.

**GRAIN SCOURER.**—Giles S. Cranson, Silver Creek, N. Y. (No model.) No. 407,722. Serial No. 270,034. Filed April 9, 1888.

**GRAIN SEPARATOR.**—Archibald M. Mecklem, Colfax, Wash. (No model.) No. 407,542. Serial No. 290,191. Filed Nov. 7, 1888.

**MILL.**—Charles F. Walters and William N. Gartside, Richmond, Ind., assignors to the Richmond City Mill Works, same place. (No model.) No. 407,751. Serial No. 296,660. Filed Jan. 17, 1889.

**WEIGHING SCALES.**—William H. Stewart, Kansas City, Kan., assignor of one-half to William S. Whittaker, same place. (No model.) No. 407,747. Serial No. 290,971. Filed Nov. 15, 1888.

**COTTON SEED CRUSHER.**—George W. Simmons, Conyers, Ga. (No model.) No. 407,373. Serial No. 300,102. Filed Feb. 16, 1889.

**MACHINE FOR CRUSHING SEEDS.**—James A. J. Gibson, Crawford, Ala. (No model.) No. 407,346. Serial No. 294,625. Filed Dec. 26, 1888.

**AUTOMATIC GRAIN-WEIGHING MACHINE.**—Edgar L. Wells, Marseilles, Ill. (No model.) No. 407,883. Serial No. 309,745. Filed May 6, 1889.

### Issued on July 30, 1889.

**BALING PRESS.**—William M. Denman, Lampasas, Tex. (No model.) No. 408,089. Serial No. 287,715. Filed Oct. 10, 1888.

**BALING PRESS.**—William A. Laidlaw, Cherokee, Kan. (No model.) No. 408,115. Serial No. 290,772. Filed Nov. 14, 1888.

**REVERSING BELT GEAR.**—Hamilton E. Smith, New York, N. Y. (No model.) No. 408,049. Serial No. 251,039. Filed Sept. 29, 1887.

**CORN SHELLER.**—Henry Lippold, Jr., Corry, Pa. (No model.) No. 407,829. Serial No. 288,485. Filed Oct. 18, 1888.

**APPARATUS FOR DRAWING OFF AND MIXING THE GRAIN FROM ELEVATORS.**—William H. Sprague, Horwich, County of Lancaster, England. (No model.) No. 407,907. Serial No. 299,569. Filed Feb. 12, 1889. Patented in England May 21, 1886. No. 6,840.

**GRAIN SEPARATOR.**—William F. Kehm, Mason City, Iowa. (No model.) No. 407,956. Serial No. 289,890. Filed Nov. 3, 1888.

**STOP MOTION REGISTER FOR GRAIN SCALES.**—Francis H. Richards, Hartford, Conn., assignor to the Pratt & Whitney Company, same place. (No model.) No. 498,192. Serial No. 288,162. Filed Oct. 15, 1888.

**COTTON SEED CLEANER.**—Robert H. Collyer, New Orleans, La., assignor to Edward A. Blakely, same place. (No model.) No. 408,065. Serial No. 286,154. Filed Sept. 24, 1888.

### Issued on August 6, 1889.

**CAN FOR COFFEE, GRAIN, ETC.**—Stephen A. French, Cranbury, N. J. (No model.) No. 418,657. Serial No. 273,383. Filed May 10, 1888.

**METHOD OF SEPARATING GARLIC FROM WHEAT.**—Austin Herr, Washington, D. C. (No model.) No. 408,618. Serial No. 222,911. Filed Dec. 29, 1886.

**MACHINE FOR SEPARATING GARLIC FROM WHEAT.**—Austin Herr, Washington, D. C. (No model.) No. 408,619. Serial No. 268,844. Filed March 29, 1888.

**WEIGHING SCALES.**—George L. Phelps, Chicago, Ill. (No model.) No. 408,319. Serial No. 305,480. Filed March 30, 1889.

**COUNTER SHAFT AND BELT TIGHTENER.**—Peter H.

Kroneke, Santa Rosa, Cal. (No model.) No. 408,417. Serial No. 307,321. Filed April 15, 1889.

**GRAIN WEIGHING AND REGISTERING MACHINE.**—August H. W. Droste, St. Charles, Mo. (No model.) No. 408,467. Serial No. 309,418. Filed May 3, 1889.

## EXPERIMENTS WITH OATS.

Of late the agricultural departments and the experimental farms of the different states and of the general government have done much toward advancing our agricultural interests, and indirectly have proved beneficial to the whole country.

The Illinois Experimental Farm, which stands among the first of the country, has been conducting a number of experiments with the different grains. In experimenting with Welcome oats different quantities of seed were used per acre, and the seeds were planted at different depths. Last year, which was a favorable season for the oat crop, a number of experiments were made with these oats with very good results. The soil in which they were planted was prairie loam, the land having been manured and plowed the preceding fall. The land devoted to each experiment was about one fortieth of an acre. While the plots were small, still there is no reason why the same results could not be obtained from much larger plots.

The rate of yield per acre of oats sown broadcast, at rates varying from 1 to 4 bushels per acre, varied from 52½ bushels from 1 bushel, to nearly 64 bushels from 2½ bushels per acre. There was but little variation in the plots sown at rates varying from 2 to 3½ bushels per acre. The largest yield in any trial was at the rate of 66 3 bushels per acre, when 2½ bushels had been sown per acre. The largest yield of straw was at the rate of 5,220 pounds per acre, when 3 bushels had been sown.

Plots that were sown earliest gave the best yields but were longest in ripening. Those sown at intervals of one week from April 6 to April 27, with other conditions as nearly similar as possible, the earliest sowing gave a yield at the rate of 66.3 bushels per acre, about 9 bushels more than from sowing one week later, and about 17 bushels more than from either of the still later sowings. The yield of straw in each case was at the rate of about 5,400 pounds per acre. The later sowings came up more quickly, and were but three days later in ripening.

Of selected kernels planted in rows and covered at a depth varying from 1 to 6 inches, the more shallow plantings came up first, headed first, and ripened a little the earliest. The largest yield was from seed planted at a depth of 3 inches. The next largest yield was from that planted at a depth of 4 inches, and next came that covered by only 1 inch of soil.

Oats sown on a moderately loose seed bed yielded at the rate of 63.3 bushels per acre, about 6 bushels more than when the seed bed was either more compact or very loose. The difference in yield of straw was still more in favor of the moderately loose seed bed.

Thirteen per cent. of the kernels of oats apparently of good quality and vitality failed to germinate under favorable conditions. In broadcast seeding in field plots, little more than 55 per cent. grew in any case, and an average of only 44 per cent. grew on eight plots. The average number of stalks in each stool was less than two in the broadcast seeding.

## MEETING OF GRAIN DEALERS.

Grain dealers and shippers doing business along the lines of the Missouri Pacific and the Burlington & Missouri lines of railroad within fifty miles of Nebraska City, held a meeting at that place July 29 and discussed a number of matters pertaining to their business.

The object of the meeting was not made known, but it was reported that several complaints which had been made against the railroads were discussed at the meeting and submitted to the representatives of the lines interested. There were over twenty-five dealers in attendance.

The first carload of new flaxseed received at Chicago this year arrived July 25. It was from Southern Kansas, and graded No. 1. Last year the first new flax was received July 18, from Kansas, and graded No. 1.

Prince Bismarck has received a petition from the Upper Bavaria Chamber of Commerce, asking him to do what he can to stop trading in "futures." Is it possible that any of Bavaria's merchants can have been caught in "Old Hutch's" recent successful wheat corner?—*Chicago Journal*.



## THE GARRY CAP ROOFING AND CORRUGATED IRON.

The fact that iron roofing and siding have been employed for so many years is proof enough that it must have many advantages, especially when we remember how imperfect were the first appliances, and how different from the improved forms and styles now in use. The gradual cheapening of iron, as well as the improvement in the form in which it is now applied for roofing and sheathing has caused a tremendous increase in its use of late years, showing that its cheapness, durability, and above all, adaptability, are commencing to be fully appreciated by the public. Not only are buildings roofed and covered with iron insured at lower rates, but experts and scientists state that it is impossible for a building covered with iron to be struck by lightning. Grain elevators, from their usual location on railroad tracks, need the protection from sparks afforded by iron roofing and sheathing.

The Garry Iron Roofing Company of Cleveland, have been in the business since 1870, being the oldest firm in the trade. They make all sorts of iron goods for roofs, siding and ornamental purposes. They make a special corrugated iron siding designed more particularly for elevators, in which the corrugations are made crosswise of the sheet, so that when applied they will run up and down the building, giving more elasticity to the iron and prevent its buckling when the building settles.

The Garry Cap Roof is made of the best refined box annealed iron and sheet steel. In the method of its application nailing and screwing the joints is avoided. In their catalogue the manufacturers thus speak of the advantages of this cap roofing: "The anchors or cleats, being of the same material as the roof, by our patent process of attaching the same, though perfectly secure, do not interfere with expansion or contraction. All the cross-joints are lock-d and grooved, which allows expansion and contraction in an equal ratio, while perfectly water-tight. Our upright joints, capped and riveted, with the roof firmly flashed to side walls, become self-sustaining, and have in many instances preserved the neighboring buildings when roof-boards, rafters, etc., were burned away. We use no other than the 'Metallic' and pure linseed oil to protect the iron from the atmosphere, which is from 75 to 100 per cent. more expensive and proportionately as protective as any other article in the country. Our 'Cap' roofing is shipped in rolls, which is much better than to ship in sheets with edges formed, as is the case with all other kinds of iron roofing but the Garry Cap. The expense of boxes is saved, and avoids the breaking of the locks, and flattening the edges down and otherwise injuring the roofing, which saves time and expense in laying it. As to durability, we can show where iron roofing has been on for twenty or thirty years and still is good. An occasional coat of our metallic paint preserves the roof at a less cost than it takes to repair any other kind of roofing."

The GARRY IRON ROOFING COMPANY of 152 Merwin street, Cleveland, Ohio, will be pleased to give any information desired by readers. Their catalogue is an instructive one, showing the adaptability of their goods, and will be sent to those who apply for it.

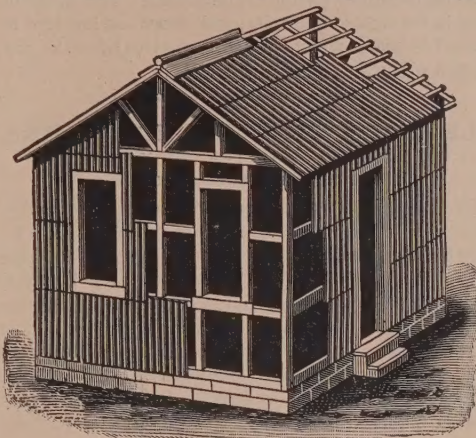
There is a man down in Pennsylvania who has lived on nothing but cornmeal and water for four years. He raises the corn himself, and grinds it in a mill of his own manufacture. Moreover, he believes that he cannot get to heaven unless he eats cornmeal. What a splendid stroke of policy it would be to send him to Europe to preach the gospel of cornmeal to the dietary heretics there who won't eat our good corn!

It was to be supposed that a cry of shortage in the wheat crop would be raised about this time. Holders of old wheat and speculators are interested in keeping the new harvest out of market as long as possible. Hence the startling reports from the Northwest. The crop of Minnesota and Dakota is not yet threshed, and the estimates are of the wildest and most misleading character. It is evident that the peach-crop liar has his match in the wheat-crop prevaricator.—*Baltimore Herald*.

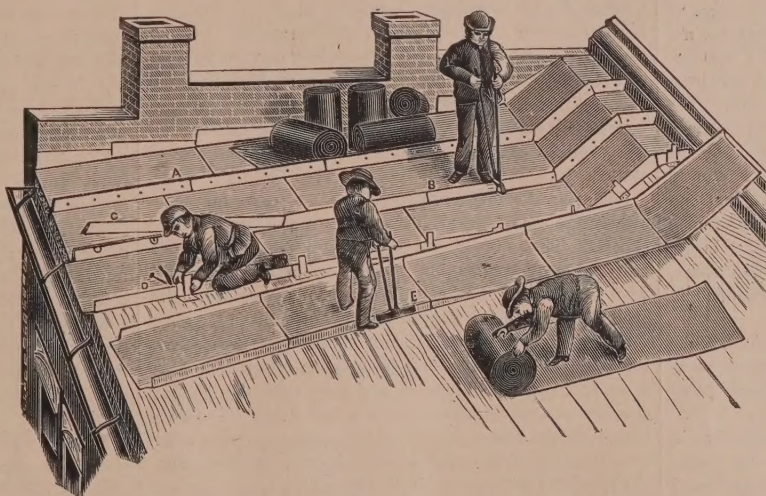
## THE ST. LOUIS ELEVATOR COMBINE.

At last the proposed consolidation of the grain elevator companies of St. Louis and East St. Louis into one company has been accomplished, and the new company has started into business under the name of the St. Louis United Grain Elevator Company. The company's capital stock is \$2,465,000, and their bonded indebtedness is \$1,200,000. The total capacity of the elevators controlled by the company is 10,000,000 bushels. The company has adopted a number of reforms which they will carry into effect, and they have also reduced the storage rates. The reduction in storage rates will, of course, encourage those who wish to keep grain in store to be manufactured in the future, or as an offset against future sales.

One excellent rule adopted by the company is that pro



BUILDING WITH CORRUGATED ROOFING AND SIDING.



METHOD OF APPLYING THE GARRY CAP ROOFING.

hibiting the officers and employees of the company from speculating in grain. Several elevator companies have suffered severe losses during the last year on account of the officers' speculating in grain, and to avoid any such loss this rule has been adopted. The company has adopted another rule, which prohibits the mixing of grades, and if enforced it will accomplish a great good. The company has also adopted other rules which go to show that the combination is entered into not for the purpose of robbing the public, but for giving the grain trade better service at less cost and to put a stop to cut-throat competition among elevator men of St. Louis.

The storage rates which the company has adopted are as follows: On wheat, corn, oats and rye, 1 cent per bushel for the first ten days or part thereof; 1½ cents per bushel for the second ten days or part thereof, or 1 cent per month after the first ten days; 2½ cents per bushel for three months after the first ten days; 4½ cents per bushel for six months after the first ten days, and 6 cents per bushel for nine months after the first ten days. Special bins, ½ cent per bushel extra. For dumping sacks from the river, ¼ cent per bushel, and for dumping sacks from rail, ½ cent per bushel. Sack charges from river on corn, wheat and rye, 2½ cents per sack for the first five days, and 1 cent per sack for each subsequent ten days or part thereof. Oats from river, 4 cents per sack for the first five days, and 1 cent per sack for each subsequent ten days or part thereof. Wheat, corn and rye from rail, 3

cents per sack for the first five days, and 1 cent per sack for each subsequent ten days or part thereof. Oats from rail, 5 cents per sack for the first ten days, and 1 cent per sack for each subsequent ten days or part thereof.

Mr. Webb M. Samuel, who has had years of experience in the elevator business and is a thoroughly practical and capable elevator manager, has been chosen president of the company. Mr. B. L. Slack, who for a number of years has been connected with the Union Elevator Company of St. Louis, has been chosen secretary and treasurer. Mr. Slack knows well all the details of the elevator business, and is thoroughly competent to fill the position, as is also his assistant, Mr. Charles A. Cunningham.

In a recent interview in regard to the combination Mr. John N. Booth, president of the Grain Receivers' Association of St. Louis and senior member of J. W. Booth & Sons, one of the oldest grain commission firms of the city, said: "The statement is made that the new elevator organization in fixing the ten days storage charge of 1 cent per bushel, which, by the way, the buyer of grain in this market and not the seller pays, has doubled the former rate, inasmuch as the elevators united in the recent consolidation, refuse any longer to allow the receiver rebate of ½ cent per bushel as heretofore, and as has been the case during the past three years, as stated by one of the parties interviewed. Regarding this admission I would say, while it has been generally believed by parties confining themselves exclusively to the handling of grain on consignment, that certain houses, engaged chiefly in buying grain in the country for themselves or for elevators, have been favored right along with special rebate advantages, it was not until the beginning of last year that the competition between elevators became so intense that they were generous enough to allow commission houses receiving grain on consignment a rebate on their receipts, as well as to

houses engaged in buying in the country, which magnanimity was the occasion of commission houses reducing their commission rate to the extent of the ½ cent per bushel allowed them, generally, up to the first of November last. At that time, by a common agreement among the elevators, as it was understood, the rebate was withdrawn, and was supposed to have been discontinued, a majority of the elevators, at least, we know declined longer to grant any rebate whatever.

"The firm with which I am connected has always been a strong advocate of the establishing and fostering of elevators in our city, and has aided in the erection of several, believing elevators to be as essential to the interest of the grain trade as railroads, barges and steamship lines, but it has always earnestly opposed the pernicious system of rebating, either by railroad companies or by elevators, which alone has developed the track buying business in

the country in the past few years, insisting that all customers, large or small, handling on consignment or buying direct, should be treated in every respect alike. We have also always insisted that elevators should make their charges to correspond as near as possible to those in competing markets, believing it to be to their interest to do so.

"Respecting the consolidation of the elevator interest of our city, we hope and believe it will prove beneficial to all interests concerned, to that of the producer, the shipper, the miller, the exporter, the speculator, the banking institutions and receiver, providing the association confines its operations to its legitimate business of storing grain and realizes the importance of treating all customers alike and of affording every facility and accommodation possible for handling grain promptly and satisfactorily.

"It is not the ¼ or ½ cent per bushel in charges that shippers in the country are so much concerned about, but less dockage on the part of the elevators in weighing, a spirit of more liberality in grading, and, above all that prices in our market should be as high as elsewhere."

The report of the Commissioner of Patents for 1888 which has recently been issued shows that during the year 20,420 patents were issued. Of these 57 were for grain binders, and 14 for grain drills. The total on matters relating to grain was 113. The total number of patents granted for machines for facilitating the production and handling of grain must have been nearly 400.



## WATERWAYS' CONVENTION AT WEST SUPERIOR.

The waterways' convention held at West Superior, Wis., Aug. 6 and 7, was well attended, there being about 250 delegates present the first day and about 300 the second. All the large cities and some small ones on the great lakes were represented, also other cities of the West and Northwest.

The meeting was called to order by Judge Clough of Superior, who stated the object of the meeting. Mr. E. P. Bacon of Milwaukee, was then chosen temporary chairman and delivered a fine opening address. Ignatius Donnelly, James J. Hill, president of the Manitoba Railway, and other prominent men, also made enthusiastic speeches. Leroy Andrus of Buffalo, N. Y., was elected president and was escorted to the chair amid deafening applause. The vice-presidents elected were: J. S. Durham of Illinois, Congressman Nels Haugen of Wisconsin, H. W. Seymour of Michigan, Congressman Nathan Frank of Missouri, William Thurston of New York, W. F. Hahn of Iowa, E. L. Emery of North Dakota, J. C. Flynn of Minnesota, and J. J. Cushing of South Dakota.

A small number of the delegates attempted to have the committee on resolutions instructed to throw out any resolutions which did not confine to urging the improvement of the great lakes. The representatives of the river towns strongly opposed this and it was lost.

At the second day's session a number of brilliant speeches were made and the following resolutions were adopted amid a storm of applause:

*Resolved*, That we explicitly declare as the sense of this convention that a ship canal twenty feet in depth should be undertaken and completed by the general government as early as practicable through shallows and rivers connecting the great lakes.

*Resolved*, That upon the speedy completion of a new lock and an improvement of Hay Lake channel in St. Mary's River depend cheaper rates of transportation of products of the East and the Northwest, through the use of larger freight carriers and the insurance of a continuous and safe passage of such carriers against accidents which the operation of a single lock cannot assure.

*Resolved*, That the interest of commerce imperatively demands that the appropriation of the sum named by the engineer in charge, as stated by the Secretary of War in his annual report to Congress, as the amount that can be profitably expended for the construction of a new lock and the improvement of Hay Lake channel in St. Mary's River, should not be reduced, as is usually done, but appropriated in full by Congress as recommended in said report.

*Resolved*, That this convention recommend that the harbors of the great lakes be deepened and improved as rapidly as practicable so as to accommodate vessels drawing twenty feet.

*Resolved*, That in this, as in every other convention in the interest of cheap water transportation and the consequent improvement of rivers, lakes and harbors by liberal appropriations by the general government the great system of inland navigation, the Mississippi River and its deep water tributaries, cannot be overlooked, and this convention strongly indorses continued improvements of that system by adequate appropriations by Congress.

*WHEREAS*, The great lakes and navigable waters connecting and emptying into the same have not been officially surveyed between the years 1849 and 1871; and

*WHEREAS*, Since that time numerous reefs, rocks, bars and other obstructions to navigation have been discovered in the waters; and

*WHEREAS*, Different improvements and changes as to channels and navigable water have been made by excavation and otherwise, particularly in rivers and connecting waters, which do not appear upon said charts and published surveys; and

*WHEREAS*, Various and additional lights, lighthouses, beacons, fog whistles, and sirens have been located and established and some changed since the last surveys; and

*WHEREAS*, Commerce and tonnage floated by these waters have, since said surveys were made, greatly increased and are still increasing; and

*WHEREAS*, Certain portions of these waterways are still without sufficient and necessary lights and buoys in many places where navigation is hazardous to vessels of larger class; and

*WHEREAS*, Private parties are now maintaining, at their own expense, certain lightships, buoys, and other guides to navigation upon these waters; be it

*Resolved*, That it is the sense of this convention that

the great and growing commerce on these waters demands that it is the duty of the United States Government to take such steps as may be necessary at an early day to make a careful survey of all these waters, and particularly the rivers and connecting waters; and be it further

*Resolved*, That it is the duty of the United States Government to bear the expense of providing additional safeguards against accidents by the maintenance of lightships, buoys, and other guides to navigation which are now maintained at private expense.

*Resolved*, That the chairman of this convention appoint a committee of five to prepare a memorial embodying the subject-matter covered by these resolutions for presentation to Congress.

Presid. at Andrus was instructed to appoint an executive committee of fifteen, and a number of minor resolutions were passed. The proceedings of the convention will be issued in pamphlet form soon. The delegates took in the sights of the city, and about one hundred remained for the banquet, which was given after the convention adjourned.

## ELEVATOR ENGINES AND BOILERS.

BY R. JAMES ASHERNATHY.

Elevator owners ought to exercise a little more care than they often do in the selection of steam plants for their houses. Some are inclined to purchase anything that may be called a steam engine, provided it is low enough in price, or, as they put it, cheap enough. Steam engines, like all other kinds of machinery, and in fact everything else, are not always cheap because low priced. Low prices are sometimes an indication of great dearth, because no matter how low the price, if the engine is not what is required, the money invested in it is virtually thrown away. It is true a man may make life miserable in a constant effort to make his engine do. In order to get a return for his investment, but after all, if he succeeds, it is still money, or its equivalent, thrown away. A man's life is, or ought to be, worth something, and every hour it is shortened in that way is so much power wasted. It does not matter so much about the style of the engine as long as it is strong, well made and durable, constructed on scientific principles, and economical in the use of steam.

Some elevator men imagine they do not care for economy in the use of steam, because "coals are plentiful and cheap." That may all be, for certain seasons, or for a long series of seasons, but it can scarcely be regarded with safety as a lifelong dependence anywhere. But even if it could be, it is even then not a sufficient excuse for being careless and indifferent in the matter of selecting an engine. It will prove far more satisfactory to have a really first-class engine in any way, even though fuel does not cost a cent, than to have a faulty one. The more improved and best styles of modern steam engines cannot as a rule be used in grain elevators because of their being too large and expensive. Take the Corliss type as an example: The smallest size made is, I believe, 12x30 cylinder, which is much too large for the average country elevator, but answers well for large houses, and many are in use in the great grain-handling centers where very large houses are required. The reason why that class of engines is not made smaller is because the peculiar method of cutting off steam employed cannot be advantageously used on short and quick moving engines, and small cylinder engines must move quickly in order to yield power. There are, however, other forms of variable cut-offs used on small engines which, while probably not being as efficient as the other, are still good, and make the engines on which they are used comparatively economical steam users.

The quicker the motion of an engine, within reason, the better it is adapted to the use of small country elevators, because all such are, or ought to be, provided with separators or corn shellers, or both, which are rapid running machines. I have found the Westinghouse Engine very convenient for driving elevators. One side of it can be hitched directly to the sheller, while the other side can be used for driving the other machinery by belting from it up through the building. However, I do not care to make distinctions, and am always satisfied with a good engine of any make or pattern. An ordinary pattern with cylinder 11x16 is large enough and has a motion quick enough for the largest country elevators that do nothing but a local trade. Transfer houses of large storage capacity require heavier engines. But an 11x16 will shell with ease from 700 to 800 bushels of corn per hour,

drive all the other machinery, and do all the work for any country house up to 25,000 bushels' capacity. For smaller houses, smaller engines, down to 8x12, will be all that will be required. I do not think any house that handles and shells corn ought to have a smaller than 8x12.

A word right here as to the capacity of engines. A great many vendors of engines, and especially itinerant vendors, otherwise traveling salesmen, when talking engines to elevator men, rate them at so many horse power. As a rule that way of putting the matter is misleading. The capacity of an engine may be and often is rated above what it should be, in order to beat some other engine and secure an order. An elevator man should ask no questions, nor listen to talk about horse power. What he most needs to know is the comparative sizes of the cylinder. He can then judge for himself as to relative capacity. One maker may rate his 9x14 engine at 35-horse power, which is not very far out of the way at the speed such engines are now run, and he offers his 9x14 35-horse power engine at so much money, probably at about what it is worth. The elevator man to whom the offer is made wants a 35-horse power engine, or thinks he does. A traveling man, for instance, comes along, and the elevator man asks him for prices on a 35-horse power outfit. Well, that traveling man has made prices before, and knows 35-horse power has a pretty broad significance, and is liable to be a very elastic term or factor, so he straightway makes him a price on a 25-horse power considerably below previous prices. The elevator man thinks he has struck a bargain, and gives an order, never stopping to consider that the first price was on a 9x14, and the latter price on an 8x12, both called 25-horse power. The capacity of the small one is stretched a little, still if given steam at a pressure high enough it can be probably worked up to 25-horse power, but the elevator man has beaten himself by not being informed as he should have been. If he really needed a 25-horse power, the one he has bought is too light, and therefore a constant source of vexation. A 9x18 is doing fully as much as it ought if constantly worked up to 35-horse power, and if that much power is really needed it would be cheaper in the end to get a 10x16 or its equivalent in some other measurement.

The boiler should have an easy capacity, at least five horse power above the rating of the engine. An engine may be strained above its normal capacity without injury to anything except the engine itself, but there is always danger in straining a boiler above its capacity; in fact, rated capacity should never be reached in a boiler. A constant overstrain slowly but very surely wears out and exhausts the tenacity and vitality of the irons of which the boiler is made, and sooner or later it yields. It may be in a collapse without much injury or damage, or it may be in a terrific explosion with much damage and loss of life.

No owner of an elevator can afford to take the slightest chance on a disaster of that kind, and must therefore see that he has a boiler of ample capacity for all requirements, that will meet all demands made upon it without overstraining of any kind.

It is sometimes troublesome to get a liberal sized engine and boiler room, bunched in as they usually are by the track on one side and driveway on the other, but as much room within reason should be obtained as can be, so as to have plenty of working room without being crowded. Furnaces should be constructed, not carelessly, but carefully, and with the view of getting the best possible draft results. Every plant of any size located in sections of country where the water is impregnated with lime or other similar substances should have heaters and what are called lime extractors, to free the water of its impurities before pumping it into the boiler. In fact, every steam plant, whether large or small, should be provided with extractors. The expense of good devices for that purpose has been considered too great for small plants. For that purpose I have seen casks or barrels filled with hay used. The hot water is made to pass through the barrel, or is pumped directly from the hay barrel into the boiler, the hay acting as a lime extractor. When one charge of hay has done all it can in the way of removing the hard substances from the water, it is replaced by a new supply. I do not know just how effective a method it is, but it is a very cheap and convenient arrangement, and one that can be easily tried almost everywhere. If it does any good as an extractor, it is much better than none at all, and will prove a great relief to the boiler.

Care should always be taken to have the stack reach up to or above the highest part of the building. If that is



not done, the draft will be greatly interfered with unless the wind be exactly in the right direction to suit the locality of the stack. As the wind blows in all directions, and may blow from any point of the compass in the same day, it can be readily seen how very annoying a drawback of that kind is. While it sometimes answers very well as a cheap makeshift to use injectors or inspirators, it is hardly profitable to make a continuous business of it. They seem to be a naturally cranky set of mechanical devices, and liable at any time to refuse to work, without any known or apparent reason for it. But anyhow, they get out of order very easily, and on that account are unreliable and troublesome.

Steam pumps are now made very cheaply, and ought to be added to every steam plant. They are less trouble, far more reliable, and the operator can feel assured of being able to force water in the boiler whenever needed to do so, instead of stopping, putting out his fire, and going to tinkering, as he so often has to do with an unreliable inspirator.



Mr. W. G. Avery, president of the W. G. Avery Manufacturing Company of Cleveland, Ohio, has just had Canadian patent No. 31,573 granted him on his detachable belt fastener, and contemplates putting them upon the Canadian market at once.

The "Bamber" Flax Reels, made by the E. H. Pease Mfg. Company of Racine, Wis., ought to be in great demand this year, as the flax crop will create a demand for something first class in this line, and the "Bamber" seems to have proven itself a reliable machine.

The Jeffrey Manufacturing Company, Columbus, Ohio, manufactures of chain elevating and conveying machinery, report that trade has been very active in the past month. They have orders for conveyors and elevators from various parts of the country, and have just shipped several outfits to Japan and South America.

The Avery Stamping Company of Cleveland, Ohio, write us that Mr. H. W. Caldwell, 131 and 133 West Washington street, Chicago, Ill., has taken the general agency in the West for their celebrated patent Seamless Steel Elevator Buckets, and will carry a full line of sizes in large quantities of the different styles of buckets, including the Avery-Caldwell Patent Corrugated Bucket, which is pronounced by all users of buckets the finest bucket ever brought out. The Avery Company request their friends in the West to write to Mr. Caldwell for prices and any other particulars they may desire.

### IMPORTS OF BREADSTUFFS.

The summary statement of the imports and exports for the month of June has just been issued by the Bureau of Statistics, and shows that during the month we imported breadstuffs valued at \$109,229, against \$177,469 for June, 1888, and for the twelve months ending June 30 we imported breadstuffs valued at \$8,029,724, against \$8,755,792. During the month we imported 145,642 bushels of barley, 31 bushels of corn, 2,786 bushels of oats, 148,852 pounds of oatmeal and 38 bushels of wheat, against 24,381 bushels of barley, 1,126 bushels of corn, 5,516 bushels of oats, 36,095 pounds of oatmeal and 165,034 bushels of wheat during June, 1888.

During the twelve months ending June 30, we imported 11,368,419 bushels of barley valued at \$7,723,838, against 10,831,461 bushels valued at \$8,076,082 for the twelve months ending June 30, 1888. Thus while we imported more barley than the preceding cereal year, we paid less for it.

In the matter of corn our imports fell off from 37,493 bushels for the twelve months ending June 30, 1888, to 2,401 bushels for the twelve months ending June 30, 1889. And our importations of oats fell off from 67,838 bushels in 1887-'88 to 22,310 bushels in 1888-'89. Only 16 bushels of rye were imported in 1888-'89, against 49 bushels in 1887-'88. During 1888-'89 we imported 130,649 bushels of wheat valued at \$119,017, against 583,115 bushels valued at \$466,886 in 1887-'88.

The oat clippers clipped the pocketbooks of the Milwaukee speculators entirely too close for comfort.

## Points and Figures.

Indiana reports a shortage in the wheat crop of 15,000,000 bushels.

The Texas crop of wheat and oats will be up to the average, and of corn and cotton, above the average.

It is said that the receipts of corn at Chicago during the first two weeks of July were the largest on record.

Wanted—Four hundred millions of step-ladders, to be used in husking Nebraska's corn.—*Omaha World-Herald*.

The *Farmers' Review* estimates the spring wheat crop at 165,000,000 bushels, against 137,916,000 bushels last year.

The "ticker" is a great moral instrument, and must not be suppressed. It transforms gambling into "business."—*Puck*.

The only argument in favor of corn as the national flower is that it furnishes the national juice.—*Chicago Journal*.

The aggregate wheat acreage this year is reported to be the largest since 1884, and the acreage of spring wheat is larger than it was that year.

A large percentage of the wheat grown in Vigo, Sullivan, Parke and Vermillion counties, Ind., is said to be badly sprouted and damaged in the shock.

The Illinois wheat crop is estimated at 17 bushels per acre, or a total of 34,000,000 bushels, against 33,500,000 bushels last year. Quality this year superior.

For the month of July the eastward movement of grain from the West through Buffalo showed a decrease of 83,296 bushels of grain as compared with July, 1888.

A place-hunter named Corn has walked from Baltimore to Washington. The attention of Secretary Rusk should be directed to this cornstalk.—*Harrisburg Patriot*.

Col. G. D. Rodgers, editor of the Minneapolis *Market Record*, has raised his estimate of the Minnesota and Dakota wheat crop to 85,000,000 or 90,000,000 bushels.

During July 3,329 cars of winter wheat and 132 cars of spring wheat were inspected into store at Chicago, against 985 cars of winter wheat and 914 cars of spring wheat for July, 1888.

The wheat crop of Europe and India is small. Well, American farmers will have 50,000,000 bushels more than usual to sell; but it has got to bring a good price.—*Chicago Journal*.

A car of new No. 2 white oats was received at Chicago recently, from Janesville, Wis., which tested 42 pounds to the bushel. The sample was conceded to be one of the finest ever seen on the Board of Trade. They were sold at 30¼ cents.

Reports from California state that the yield of wheat is disappointing in most localities. The crop is estimated from 37,000,000 to 39,000,000 bushels. Last year California produced 28,451,000 bushels, and 30,429,000 bushels the year before.

For the first seven months of the present year 284,000 bushels of flaxseed were received at Chicago, against 612,500 bushels for the same period of 1888. And 477,600 bushels were shipped, against 731,923 bushels for the first seven months of 1888.

Elevator men should watch their spouts and bins, and close up all holes made by rats and mice. A Connecticut man recently discovered a rat hole in a chute leading from an oat bin, and upon tearing up his floor he found 165 bushels of spoiled oats.

Kansas' corn crop is estimated at 275,000,000 bushels, which is the largest crop the state has ever produced. Last year only 158,185,000 bushels were produced. The oat crop is estimated at 60,000,000 bushels against 42,654,000 bushels last year.

There are now in actual operation in Bengal 844 miles of canal, of which 614 miles are navigable. The total area commanded by irrigation canals is 2,698,845 acres, of which 1,768,811 are irrigable by completed projects and 1,398,147 by existing works.

What an itching some men have for "putting up margins" on grain and stocks! Scarcely a day passes but the papers record the collapse of a man reputed to be sound, and his failure is a nine days' wonder. Then comes the information, with monotonous regularity, that he had been "speculating." How would it do for the state legislature to order a lot of warning placards posted up at the

doors of our Exchanges, copying the old mill sign: "Don't Munkly with the Buz Saw"—*Bakers' Helper*. The editor must have got cut by the saw recently.

The Illinois State Board of Agriculture report an average yield per acre of 37 bushels of oats, which, with the exception of last year, is the largest state average the state has ever had. The crop is estimated at 150,000,000 bushels, against 137,400,000 bushels last year.

Ward Ames, the grain man, is back from a trip through the North Dakota grain fields and reports the outlook as very encouraging. He predicts large receipts this fall in Duluth. All through the country directly north of Fargo the crops have been good and harvesting is well along.—*Duluth News*.

During the week ending Aug. 10 there were exported from the principal Atlantic ports 789,900 bushels of wheat, 1,650,100 bushels of corn, and 3,900 bushels of oats, against 653,200 bushels of wheat, 655,200 bushels of corn, and 4,400 bushels of oats for the corresponding week of 1888.

The first consignment of this season's spring wheat was received at Minneapolis Aug. 6. It consisted of three carloads from South Dakota, and graded one car No. 1 hard and two cars No. 2 northern. This is considered very good for wheat from a region which does not grow the hard wheat.

The stocks of grain in Chicago elevators Saturday evening, Aug. 10, were 2,195,519 bushels of wheat, 2,142,357 bushels of corn; 1,887,628 bushels of oats, 354,963 bushels of rye, and 9,503 bushels of barley. Total, 6,589,910 bushels of all kinds of grain, against 7,807,778 bushels a year ago.

In speaking of wheat, Lindblom & Co. of Chicago say: "The test of value will come when the receipts at the seaboard are of sufficient volume to either attract or repel buyers. If the wheat is then taken there, as we have no doubt it will be, it will prove that America's crop is wanted and the price will then settle itself.

A. B. Robbins of the Northwestern Elevator Company, of Minneapolis, in speaking of the wheat crop of Dakota and Minnesota says: "Samples of wheat from houses widely apart show an almost uniform excellence. The kernel is bright and plump, in striking contrast to that of last year, which had a dull appearance with a shrunken kernel, in some cases almost entirely without filling."

The visible supply of grain in the United States and Canada, as compiled by Secretary Stone of the Chicago Board of Trade was as follows:

	Aug. 10, 1889.	Aug. 3, 1889.	Aug. 11, 1888.
Wheat, bushels.....	13,398,405	12,688,122	25,228,362
Corn, bushels.....	6,968,546	6,988,142	8,539,599
Oats, bushels.....	3,984,976	3,603,790	1,767,117
Rye, bushels.....	807,295	796,507	177,319
Barley, bushels.....	358,056	302,501	145,789

According to the *Farmers' Review* the oat crop of the present season will be the largest ever harvested in the United States; but the yield will not be as heavy as was at first anticipated, owing to the excessive wet weather and frequent wind storms that have lodged and rusted the straw on many fields. The crop will be a heavy one all over the country save in Dakota, where, as has been previously reported, oats are almost a total failure owing to drouth.

Boulanger is being proven to be a dishonest scoundrel as well as a political and military charlatan. Some day it may come to official notice that he was one of the instigators of the famous California wheat corner two and a half years ago, and that his part of the scheme was to foment a general European war. Every student of European affairs will remember his extraordinary and almost successful efforts about that time to bring about a great war.—*Daily Business*.

The final collapse of the oat deal by which many Milwaukee speculators in combination tried to corner the oat market in Chicago occurred Aug. 6. The speculators lost about \$500,000. The deal was engineered by "Doc" Bigelow of Milwaukee, who through his large earnings in wheat last fall had obtained the reputation of being a wise speculator. Milwaukee capitalists backed him heavily in his attempt to corner the Chicago oat market, but when the final collapse came yesterday oats which had been bought last winter at from 28 to 30 cents sold out at 2½¢. Bigelow is reputed to have lost all he made in wheat, while among other heavy losers were John Black, E. H. Brodhead, F. G. Bigelow, Hamilton Townsend, C. T. Bradley and H. H. Camp, besides a number of others whose individual losses range from \$10,000 to \$70,000.



## ELEVATOR AND GRAIN NEWS

Haigler, Neb., needs an elevator.

A new elevator is to be built at Chestnut, Ill.

A cotton-seed oil mill is to be built at Rowesville, S. C.

P. W. Roberts will start a distillery at Greenville, S. C.

L. R. Wolf, grain dealer of Oxford, Iowa, has sold out.

A cotton seed oil mill will soon be erected at Florence, Ala.

A new 18,000-bushel elevator is being erected at Ludell, Kan.

S. Rathburn will build a broom factory at St. Cloud, Minn.

An elevator is in the course of construction at Herman, Minn.

Arlington, Ind., has a 75,000-bushel elevator and wants another.

Gilmore & Frank at Gridley, Ill., are repairing their elevator.

B. F. Rogers, grain dealer of Cambridge, Mass., has sold out.

Work has been started on a new elevator at Broken Bow, Neb.

E. J. Cox of Nashville, Mich., has sold his elevator at that place.

A 20-ton cotton-seed oil mill will be built at Barnwell C. H., S. C.

I. W. Cunningham, grain dealer of Lyndonville, Vt., has sold out.

Louis Anderson, dealer in seeds, etc., at Minden, Neb., has sold out.

Howe & Tisdale are erecting a 20,000-bushel elevator at Wenona, Ill.

Some new machinery has been put in the elevator at Saybrook, Ill.

The Farmers' Alliance at Easley, S. C., will erect a grain elevator.

Sherick & Lapsley, grain dealers at Farmington, Iowa, have dissolved.

J. M. V. Cargill is building a \$40,000 elevator at Minneapolis, Minn.

Over 50,000 bushels of corn were recently in store at Bromfield, Neb.

The Seels' Milling Company have erected a new elevator at Troy, Ill.

A Minneapolis party is to build a grain elevator at Stephenville, Tex.

Fletcher & Holtze of Little Rock, Ark., are going to erect a warehouse.

The erection of a cotton-seed oil mill is projected at Oangeburg, S. C.

Lowry Bros., grain dealers at Lincoln, Neb., have dissolved partnership.

The firm of T. C. Eastman & Co. of Milford, Mass., has been dissolved.

E. T. Head & Co. of Chicago, Ill., dealers in grain, etc., have dissolved.

Dawson, Roak & Co., grain dealers of McCallsburg, Iowa, have sold out.

S. R. Townsend will build a 10-ton cotton-seed oil mill at Red Banks, N. C.

The corn supply at New York City is said to be controlled by two firms.

Jones Bros & Co., grain dealers at Belleflower, Ill., are building a large office.

The Little Rock Oil Mills Company, Little Rock, Ark., will enlarge their mill.

The Meridian Oil Mills Company at Meridian, Miss., are enlarging their mill.

The Augusta Brewing Company of Augusta, Ga., are enlarging their brewery.

The firm of Wm. Sievers & Co., seed dealers at Omaha, Neb., has been dissolved.

A. E. Calley has sold out his grain and lumber business at Guthrie Center, Iowa.

Elliott & Hyman, grain dealers, have succeeded Ward & Pyle at Bomley, Iowa.

The firm of Wellington & King, grain dealers at Waco, Neb., has been dissolved.

The United Brooklyn Brewing Company have filed articles of incorporation with a capital stock of \$1,200,000.

000. The business will be carried on in Brooklyn and Newtown, N. Y.

The grain firm of Miner, Hull & Co at Williamsburg, Iowa, has been dissolved.

A stock company will probably erect a cotton-seed oil mill at Springhope, N. C.

Pegram Bros. are making some improvements in their elevator at Broadwell, Ill.

Bourdon Piche & Co., grain dealers at Montreal, Que., have dissolved partnership.

Wheeler & Carter, grain dealers at Minneapolis, Minn., have dissolved partnership.

A stock company is being formed at Forrest City, Ark., to build a cotton-seed oil mill.

Machinery has been ordered for a new cotton-seed oil mill to be built at Macon, Ga.

The firm of Dunlap & Low, grain dealers at Cumberland, Iowa, has been dissolved.

William Angus & Co., grain dealers of San Francisco, Cal., have gone out of business.

A cotton seed oil mill will be built by the Cordele Guano Company at Cordele, Ga.

A good deal of wheat in Jackson county, Michigan, was damaged by the green house.

Hays & Reed, grain and stock brokers at Minneapolis, Minn., have applied for a receiver.

A company has been organized to build a \$15,000 cotton-seed oil mill at Oxford, Ark.

The Anderson Gin Company will erect a small cotton-seed oil mill at Spring Garden, Ala.

Frank Albrow, Ruthven, Iowa, has sold his elevator to A. W. Dawson, Marble Rock, Iowa.

McGinty & Hunnicut of Athens, Ga., are doubling the capacity of their cotton-seed oil mill.

A company has been formed at Rock Hill, S. C., to erect an oil mill and fertilizer factory.

The Northern Pacific Elevator Company will build an immense elevator at Davenport, Wash.

E. L. Colburn and others are erecting a corn and feed mill and an elevator at Pine Bluff, Ark.

The St. Louis, Arkansas & Texas R. R. Company will erect a grain elevator at Pine Bluff, Ark.

The Farmers' Alliance of Smithfield, N. C., contemplate the erection of a cotton-seed oil mill.

A grain elevator is being built at Geneva, Neb., on the Fremont, Elkhorn & Missouri Valley Railroad.

J. Barnes of Huron, Dak., has contracted for the necessary material for a 30,000-bushel grain elevator.

W. A. Nicholson and others have organized a company to build a cotton-seed oil mill at Morrison, S. C.

The Rice Grain Elevator Company of Paxton, Ill., has been incorporated with a capital stock of \$50,000.

Preparations are being made by a number of citizens of Covington, Tenn., to erect a cotton-seed oil mill.

Work has been commenced on the Northwestern Brewery at Stillwater, Minn. It is to cost \$40,000.

Dick Brothers' Milling Company at Quincy, Ill., have erected an elevator with a capacity of 60,000 bushels.

The Evansville Grain Company of Evansville, Ill., filed a certificate of increased capital stock to \$20,000.

Nels Nelson, grain dealer at Earling, Iowa, has taken a partner, and the firm name is now Nelson & Auston.

Jacob Mattis and others are forming a stock company to build a grain elevator and stock yards at Morton, Ill.

The Emma Oil Mill at Pine Bluff, Ark., is being overhauled and repaired, and new machinery will be added.

The Sulphur Springs Oil Company of Sulphur Springs, Tex., has been incorporated with a capital stock of \$45,000.

The West Bend Brewing Company of West Bend, Wis., has been incorporated with a capital stock of \$100,000.

G. W. Crane, Minneapolis, Minn., has recently shipped machinery and supplies for two elevators at Hamilton, Dak.

The name of the Jay Grain and Flour Company at St. Mary's, Ohio, has been changed to the Jay Grain Company.

Carroll & Barclay, proprietors of the "Knob City Mills," Russellville, Ky., will erect a grain elevator and warehouse.

The Long Lake Roller Mill Company of Hubbard, Minn., will erect an elevator with a capacity of 350,000 bushels.

Geo. H. Davis is building an elevator at Goodhue, Minn. Joe Heaney will have charge of it when it is finished.

E. Lee Heidenreich & Co., grain elevator builders of Chicago, have the contract of Charles Councilman & Co. of Chicago for a number of grain elevators and 50,000-bushel oat bins on the line of the A., T. & St. F. R. R.

They have recently finished an oat bin at Toluca, Ill., which is 40x80 and 20 feet high.

It is reported that a company has been organized at Terre Haute, Ind., for the purpose of building a large brewery.

The new elevator at Glasston, Dak., was furnished with machinery and supplies by G. W. Crane of Minneapolis, Minn.

P. J. Duffy of Charleston, S. C., has the contract from the Florence Cotton Oil Company of Florence, S. C., for their new mill.

Runkle Bros. have completed their new 12,000 bushel elevator at Mt. Airy, Md. Steam will be used to propel the machinery.

Mr. C. Harrington of North Platte, Neb., has sold an interest in his grain business, and the firm is now Harrington & Tobin.

J. D. Rutledge, S. R. Cole and others have organized a stock company to build a \$20,000 cotton-seed oil mill at Summerton, S. C.

The Interior Grain Elevator Company have taken out a permit for the construction of an immense elevator at Minneapolis, Minn.

E. B. Wilber was recently expelled from the Buffalo Merchants' Exchange on charges of appropriating grain after it had been sold.

It is reported that the Keewatin Milling Company of Keewatin, Manitoba, will build a number of elevators at points in the province.

The partnership which existed between Gunn & Ruby, dealers in grain and agricultural implements at Seymour, Iowa, has been dissolved.

C. J. Furer will rebuild his elevator recently destroyed by fire at Fairfield, Neb. He will make it much larger and put in a grinding mill.

The Landis Elevator at Chippewa Falls, Wis., which is situated on the railroad's right of way, will be pulled down, the lease having expired.

Martin Stephenson of Brownsdale, Minn., has leased the warehouse of H. A. Brown at that place, and will go into the grain and seed business.

It is said that a company of Chicago capitalists will build elevators in towns along the Wabash Railway, between Forrest, Ill., and Chicago.

The Northern Pacific & Manitoba Railway Company are said to be contemplating the establishment of a system of elevators along their line.

Receipts of wheat, corn, oats, rye and barley at Milwaukee were in July 851,412 bushels; 1888, 725,525; 1887, 723,703, and in 1886, 746,090.

J. H. Zehner, grain dealer and proprietor of a general store at Windfall, Ind., has sold out the general store, but will continue in the grain business.

Unknown capitalists, supposed to be from New York City, have been negotiating for an unlimited amount of harbor elevator property at Buffalo, N. Y.

G. W. Crane, manufacturer of grain elevator machinery, Minneapolis, Minn., has recently shipped five complete equipments for grain elevators to Manitoba.

The elevator of Toronto, Iowa, has been moved, and the farmers are complaining loudly because they will now have to haul their grain six miles or more.

Jos. Helmick of Argenta, Ill., has purchased the lumber warehouse at that place, and is converting it into a grain elevator. It will have a capacity of 8,000 bushels.

Jones & Buchanan, dealers in grain, flour and feed at Ottumwa, Iowa, have just completed a new two-story brick building, 33x132 feet, which they will occupy.

G. Z. Sebring of Kalamazoo, has purchased the elevator of John Earle at Schoolcraft, Mich., paying \$3,800 for it. He had been using the elevator for some time.

The Peter Schoenhofen Brewing Company of Chicago, has been incorporated with a capital of \$3,000,000, half of which will be taken in Chicago and half in London.

Himebaugh & Merriman and the Omaha Elevator and Grain Company have consolidated, and are now known as the Omaha Grain and Elevator Company of Omaha, Neb.

The La Crosse Lumber Company of La Crosse, Kan., has been changed to the La Crosse Lumber and Grain Company and incorporated with a capital stock of \$15,000.

S. K. Davis & Co., Beatrice, Neb., who were formerly in the grain business at that place, have again embarked, and have purchased the elevator of Elmore & Son for \$6,500.

The Alliance Milling Company of Alliance, Neb., have ordered a 60-horse power improved Atlas Automatic Engine, with boiler, pump, heater and complete steam plant from English, Morse & Co. of Kansas City, Mo., for their new mill.

It is reported that the St. Louis elevator combine has greatly reduced the storage rates and that they are nearly 50 per cent. less than they have been heretofore. For the first ten days the rates will be 1 cent, and for the second ten days ½ cent, as at present. The rate for the first thirty days after the first ten, however, is reduced to 1



cent. For three months after the first ten days the rate is cut from  $4\frac{1}{2}$  cents to  $2\frac{1}{2}$  cents, and for six months after the first ten days from 9 cents to  $4\frac{1}{2}$  cents.

A number of capitalists have been trying to buy out the United Grain Elevator Company of St. Louis, and others have been trying to get a controlling interest in the company.

M. C. Theiser, Willow Lake, Dak., has ordered a complete bill of grain elevator machinery from G. W. Crane, Minneapolis, Minn. He will have the elevator ready for the new crop.

McDonald & Nomerson of Campus, Ill., have bought out the business of J. H. White & Co. at Sibley, Ill., and will carry on a general merchandise business, together with grain, coal and lumber.

Guckenheimer & Bros will rebuild their distillery recently burned at Freeport, Pa. The new structure will be 5x100 feet and five stories high. It will have a daily capacity for 600 bushels of grain.

It is reported that the Manchester Ship Canal Company of England, has purchased the extensive but hitherto unproductive Appleton property, consisting of wharves, elevators, etc., at Port Royal, S. C.

The big distillery at Des Moines, Iowa, is to be overhauled and enlarged into the biggest malt house in this country, with a capacity of 1,400 bushels of grain a day, and to be ready for work October 1.

The elevator at Lake Mills, Iowa, has been doing a good business of late. It is reported that during July two cars of corn were shelled and shipped every day and a car of wheat was shipped every day.

Mr. Downing has completed a 50,000-bushel elevator at La Moure, N. D. If it was a good year Mr. Downing could almost fill it with grain from his own farm. As it is he will only have about 10,000 bushels.

The American Cotton-Seed Oil Company at Galveston, Tex., have put two 250 horse power boilers in their oil mill. They will put in a new engine, and increase their tank capacity from 3,500 to 7,000 barrels.

During the month of July Baltimore received 953,772 bushels of wheat, 691,510 bushels of corn, 170,477 bushels of oats, and 4,750 bushels of rye, and shipped 230,384 bushels of wheat and 597,780 bushels of corn.

Chicago received during July 12,769,743 bushels of grain, which is the largest the city has ever had in that month. In July, 1886, 11,263,283 bushels were received; 7,013,243 bushels in 1887, and 7,425,993 bushels in 1888.

The Anchor Mill Company of St. Louis, Mo., are building a 240,000-bushel elevator. Stewart & Co. have the contract, and Todds & Stanley will furnish the machinery, which will be of the best and latest improved pattern.

At a recent meeting of the Illinois Board of Railroad and Warehouse Commission, Risser & Anderson of Roberts Station, Ill., complained that the Illinois Central had no truck scales there, and an order was issued directing that some be put up.

On Aug. 7 Baltimore elevators only contained 42,000 bushels of corn, which is the smallest amount of corn in that city since the new elevators were built. This is due to light receipts, water transportation being cheaper to the seaboard than rail.

The Sioux City Starch and Glucose Works of Sioux City, Iowa, has filed articles of incorporation and will commence the erection of extensive buildings at once. Capital stock, \$90,000. The works will have a capacity for 1,000 bushels of corn daily.

E. Lee Heidenreich & Co., grain elevator builders of Chicago, Ill., are figuring on three systems of elevators, including all machinery and power outfits for the Vladikavkaz Railway Company of Russia. The elevators are to be of 10,000, 15,000 and 20,000 bushels' capacity.

A company of Bozeman, M. T., recently placed their order for machinery for a 100,000-bushel elevator with G. W. Crane of Minneapolis, including a 40 horse power engine, boiler, scales, cleaners, etc. This is the second elevator equipped at Bozeman this season by Mr. Crane.

The Central Elevator of Cincinnati, Ohio, has just been fitted up with an entirely new outfit of machinery and machines, including two of the famous "Excelsior" Ont Clippers, largest size. The E. H. Pease Manufacturing Company of Racine, Wis., furnished everything and did the work of fitting up.

The Interior Elevator Company have filed articles of incorporation with the Minnesota Secretary of State. Its object is the erection and maintaining of grain elevators and warehouses and the carrying on of a general grain business at Minneapolis. The capital stock is fixed at \$200,000, and the liability of the company is limited to \$1,000,000.

It is reported that an English syndicate has purchased the elevator system of G. W. Van Dusen & Co., which comprises ninety elevators along the railroad between Winona, Minn., and Pierre, Dak., having a capacity of 900,000 bushels, and the Star Elevator at Minneapolis, which has a capacity of 1,000,000 bushels. Mr. Van Dusen has been in the grain business twenty-five years, and has amassed a large fortune. He is getting to be an old man and has expressed himself as being desirous of

ridding himself of his business cares. The headquarters of this system of elevators is at his home, Rochester, Minn.

The St. Louis United Grain Elevator Company have filed articles of incorporation. The capital stock is \$2,465,000, and the bonded indebtedness is \$1,200,000. The total capacity of the consolidated elevators is 10,000,000 bushels. Webb M. Samuels is president and general manager, Geo. W. Updike is vice president, and B. L. Slack is secretary and treasurer.

The Northern Dakota Elevator Company of Minneapolis, recently incorporated as the Minnesota Valley Elevator Company, have purchased the line of elevators on the M. & St. L. R. R., adding about twenty-five more elevators to the large number owned and operated by the Northern Dakota Elevator Company. They are all under the management of A. G. Chambers.

The Omaha Elevator Company of Council Bluffs, Iowa, and Himebaugh & Merriam of Omaha, Neb., have consolidated their business under the name of the Omaha Grain Company. The company has a capital stock of \$250,000, which is subject to an increase of 10 per cent. at any time. They will operate sixty-five elevators, distributed along the line of the Union Pacific.

Several of the grain elevators belonging to Charles W. Seefield, the grain dealer of St. Charles, Minn., whose disappearance and assignment last winter created so much excitement, have been sold by the sheriff. Dyer, Ingham & Co. of Dover, bought the horse power elevator at Balaton for \$800; Pfefferborn Bros. of St. Charles, the Utica elevator for \$3,800; Marfield & Co. the elevators at Tyler and Verdi, for \$90 each.

A leading grain receiver at St. Louis expresses the opinion, based on pretty thorough investigation, that not more than 30 per cent. of this year's Kansas wheat crop is of the hard or "Turkish" variety. A few years ago there was a general desire to cultivate this hard wheat exclusively, but experience seems to have demonstrated the superiority of soft wheat both as to yield and as a marketable grain.—Price Current

William G. Harley, the young man who gained so much notoriety by his connection with the great Minneapolis wheat steal, has gone to Tacoma to begin life anew. He was accompanied by his young wife, who remained faithfully by him during all the trouble and embarrassing situations. It is said that Harley has \$25,000 in cash, which was furnished him by a Mr. Paul, a millionaire uncle in Philadelphia.

The correspondent of the *St. Louis Grocer* at Wichita, Kan., says: "The wealth of the great agricultural district tributary to this city is beyond computation. It is estimated that there will be harvested this fall over 50,000,000 bushels of grain, which should find a market at this point if the elevators were provided to handle it. St. Louis should take hold of this matter, and secure such elevators, with ample facilities to control the shipment of this grain."

## Fires, Casualties, Etc.

A brewery at Newark, N. J., was burned recently. Loss, \$15,000.

A brewery at Canton, Ohio, was recently damaged by fire to the extent of \$15,000.

C. J. Martin, grain and feed dealer at Austin, Tex., was recently burned out. Loss, \$2,000; no insurance.

The Slawson Elevator at Dunkirk, Ind., was burned on the night of July 24. Loss, \$3,000; insurance, \$1,200.

Burglars broke into the office of the grain elevator at Creston, Iowa, Aug. 1, and blew open the safe, but secured no booty.

The large brewery of C. L. Centilvre & Co. at Fort Wayne, Ind., was destroyed by fire June 16. Loss, \$100,000; insurance, \$21,900. It will be rebuilt.

Messrs Guckenheimer & Bros' distillery at Butler Junction, Pa., was partially destroyed by fire on July 13. Loss \$40,000; fully insured. They will rebuild.

The large elevator at North Bend, Neb., belonging to J. E. Do sey, was completely destroyed by fire on the night of July 26. The fire is reported as being of incendiary origin.

A five-year-old son of Oscar Stake of Cotton Hill, Sangamon county, Ill., was smothered to death in a wheat bin in which he was playing, by a quantity of grain being emptied upon him.

Three elevators at Blue Hill, Neb., and their contents, belonging to H. Kelly, E. Strowbridge & Co., and Henry Hoover, were burned on the morning of July 22. Loss, \$50,000; insurance, \$17,000.

William Kirk's grain warehouses at Springfield, Ont., were destroyed by fire between 2 and 3 o'clock on the morning of July 29. It is generally supposed the fire was started by a stroke of lightning. The buildings contained 17,000 bushels of oats, 2,200 bushels of wheat, and

800 bushels of peas, all of which were burned. Total loss, \$11,000; buildings insured for \$2,000; stock fully insured.

Duncan A. MacTavish, who for a number of years was connected with the grain exporting firm of Weatherspoon, Kingsford & Co., and later a partner in the firm of Weatherspoon & Co., died recently, aged 72 years.

The National Elevator at Chicago, Ill., was damaged by the severe storm of July 27. The foundation was not damaged, as reported, but a break of thirty feet was made in the fire-proof wall, causing a damage of about \$500.

The old Chapin Elevator at Mattoon, Ill., belonging to E. & I. Jennings, was destroyed by fire on the night of July 26, together with about fifty tons of broom corn. The building was valued at \$2,000. Total loss, \$6,000; partly insured.

Lockman's brewery at Cincinnati, Ohio, was damaged by fire Aug 5 to the amount of \$40,000. The principal loss was in the ice-house and wagon sheds. The ice machinery, upon which there was a special insurance of \$25,000, was completely destroyed.

The elevator of the Minnesota and Dakota Elevator Company at Coka's, Minn., was destroyed by fire on the afternoon of July 26, together with 2,500 bushels of wheat. The fire broke out in the upper part of the building, and is supposed to have been caused by friction.

The large elevator and warehouse at Sidell, Ill., belonging to H. L. Busnell & Co., was destroyed by fire on the night of July 31. The building contained a large quantity of grain, which was also destroyed. Total loss, \$25,000. The building was fully insured, but there was no insurance on the grain.

Elevator B at Mount Vernon, Ind., owned by W. C. Fuhrer & Co., was destroyed by fire on the night of Aug. 8, together with 40,000 bushels of wheat. Loss about \$45,000; fully insured. The fire was first discovered in the tower, and it is supposed to have been caused by a hot box or spontaneous combustion.

Mr. W. S. Hancock, a well-known member of the Chicago Board of Trade, has been taken to a private asylum at Lake Geneva, Wis., for treatment. Mr. Hancock's mind had become unbalanced by the excitement of speculating, and for some time he was quite violent. It is to be hoped that Mr. Hancock will soon recover.

Lockwood Bros' elevator at Harlan, Iowa, was destroyed by fire about 3 A. M., July 14, together with 2,000 bushels of corn and oats. When discovered the flames were issuing from the roof of the engine house. Loss on building, \$5,000; insurance, \$3,500. The surrounding cribs, the office and an adjoining elevator were saved.

The grain elevator at Richmond, Minn., which was purchased quite recently by Messrs. Ahmann, Ladner & Lommel, caught fire from a spark from a passing engine on the night of July 24, and was completely destroyed. It contained 6,000 bushels of wheat which was also destroyed. Total loss about \$10,000; insurance, \$1,500.

Two elevators at Hamilton, Dak., were destroyed by fire on the morning of July 24. One belonged to the Northern Elevator Company, the other to the Minneapolis and Northern Elevator Company. They contained little grain. The loss was about \$20,000, equally divided between the two companies. The fire is supposed to have been of incendiary origin.

About 2:40 A. M., July 19, fire was discovered in a shed adjoining K. K. Liquin's elevator at Dysart, Iowa, and the building was soon destroyed. Jensen's elevator near by caught fire several times, but was saved. Mr. Liquin's loss on building and machinery was \$6,000; on contents, \$4,000; insurance, \$4,500. The fire is said to have been caused by spontaneous combustion.

Early on the morning of July 13 Furry's general store, dwelling and storehouse at Hamilton, Ont., containing a quantity of grain, were destroyed by fire. There was \$500 insurance on the grain, and \$2,500 on the other property. The fire is supposed to have been of incendiary origin as it had been on fire a short time before, and a watch kept until the night of the fire.

We regret to announce the death of George H. Jameson, of malarial fever, in Washington, D. C., Aug. 2. Mr. Jameson was one of the founders of *Daily Business* in Chicago, and until one year ago was part proprietor. For the last few months he has been connected with the *Washington Post*. He was well known in Chicago Board of Trade circles and was highly esteemed.

Following is a statement of the visible supply of grain afloat and in store on Saturday, Aug. 10, as compiled at the Produce Exchange: Wheat, 13,370,698 bushels, increase 6-2,731; corn, 6,938,425 bushels, decrease 49,946; oats 4,003,754 bushels, increase 284,000; rye 807,562 bushels, increase 11,193; barley, 444,021 bushels, increase 81,082.

The *Farmers' Review* of Aug. 7 says: "The condition of corn is considerably below the average in Illinois, Indiana, Ohio, Michigan, Wisconsin and Minnesota, and unless hot weather comes to the rescue in the near future, the quality of the yield in those states may be very inferior. As a general thing corn in Kentucky, Missouri, Kansas, Nebraska and Iowa is considerably above the average."



# THE AMERICAN ELEVATOR AND GRAIN TRADE.

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**A. J. MITCHELL,** - - - Business Manager.  
**HARLEY B. MITCHELL,** - - - Editor.

## ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

## CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., AUGUST 15, 1889.

## EXPORTS OF BREADSTUFFS.

The report of the Bureau of Statistics for July issued Aug. 9, shows that the value of our breadstuffs exported during the month was \$9,806,950, against \$7,904,452 for July 1888, and for the seven months ending July 31 we exported breadstuffs valued at \$67,036,659, against \$58,396,398 for the corresponding period of 1888. This shows an increase of \$1,902,498 for the month, and \$8,640,261 for the seven months, which is very encouraging when we consider the short crop of wheat last year.

During the month we exported 3,241,395 bushels of wheat valued at \$2,729,363, against 3,372,623 bushels valued at \$2,900,769 for July, 1888. The increase in the shipments of corn was nearly up to the average monthly increase in the shipments of this cereal since the last crop was gathered. During the month we exported 6,429,429 bushels valued at \$2,830,571, against 2,229,071 bushels valued at \$1,257,452 for July, 1888.

There was a falling off of about 10,000 bushels in the amount of oats exported during June, but during July there was an increase of nearly 75,000 bushels. During the month we exported 129,861 bushels valued at \$40,767, against 54,676 bushels valued at \$20,104 for July, 1888.

In July, 1888, we exported 31,766 bushels of barley valued at \$16,143, while last month we exported 47,632 bushels valued at \$23,325. As in June so, too, in July, there was a large increase in the amount of rye exported. During the month we exported 188,355 bushels valued at \$97,054, against 500 bushels valued at \$300 for July, 1888. There was also an increase in the amount of cornmeal, oatmeal and wheat flour exported during the month as compared with July, 1888. Thus showing an increase in everything except wheat, and the decrease in the amount of that cereal was small, being only 131,228 bushels.

As regards the value of the breadstuffs exported from the different ports, New York takes the lead with \$3,911,269, against \$2,923,628 for July, 1888; Baltimore comes second with \$1,670,942, against \$1,225,524 for July, 1888; San Francisco stands third with \$1,653,086. The value of breadstuffs exported from Boston during the month was \$849,672, against \$934,573 for the same month last year.

For the seven months ending July 31, the breadstuffs exported from Philadelphia were valued at \$2,239,978, against \$2,187,950 for the

same period of 1888, and the value of breadstuffs exported from New Orleans increased from \$2,053,818 in the first seven months of 1888 to \$4,759,574 for the same months of 1889.

## DIVERSION OF BALTIMORE'S GRAIN TRADE.

A state of affairs exists at Baltimore in regard to her grain trade that has excited the attention of her business men, newspapers and the Corn and Flour Exchange. A few months ago Baltimore's elevators were crowded with grain and Baltimore was shipping daily 100,000 bushels of corn and upward. In fact, Baltimore was shipping more than New York. A week ago it was found that there was not enough corn in the Baltimore elevators to load a first-class sailing vessel; less than 50,000 bushels in fact. This is the smallest amount of corn in store at Baltimore at any one time since the construction of her great elevators at Locust Point.

The alleged causes of the diversion of this trade are variously stated. The chief cause is the restoration of the grain rates; but Baltimore men believe that New York and Philadelphia must get better ocean rates. Baltimore would stand a better chance if she were located nearer the open ocean, for the Chesapeake is a tidy bit of water intervening between the port and the ocean. Others believe that New York and Philadelphia are getting better railroad rates, as well, while others think one source of trouble is in the terminal facilities for loading at Baltimore.

Whatever the truth may be, Baltimore is worked up over the matter and is determined to discover what is the source of the difficulty. A part of the diversion is explained by the changed situation in Western Maryland, where Baltimore no longer has a monopoly, and from whence the excellent wheat of that region is sent to millers over in Pennsylvania. Circulars are to be issued to Western grain men, seeking light on the subject. Baltimore has been a favorite point of shipment for Western men, and the diversion of its trade is not fully explained by the growth of Newport News and the building of the Western Maryland Railroad.

## SYKES SENTENCED AGAIN.

James W. Sykes has again been convicted of issuing fraudulent warehouse receipts, and sentenced to two years' imprisonment in the state penitentiary of Illinois. In 1886 Mr. Sykes owned a warehouse in Chicago, and at different times borrowed about \$90,000 from the Merchants' Loan and Trust Company of that city. Finally he borrowed \$7,500 and \$8,000 from the company, giving a note for the total amount, and as collateral security three warehouse receipts for seed in his warehouse.

About two months after making the loan Sykes failed and made an assignment. After this he told the bank there was no such grain in the warehouse as described in the receipts. He was indicted and tried for issuing fraudulent warehouse receipts, the penalty for which is not less than one nor more than ten years in the penitentiary. His defense was that the law applied only to receipts for grain, and not to those for seed, and that the bank knew that the receipts represented nothing. The jury disagreed, and he was tried a second time, convicted, and sentenced to three years in the penitentiary. He appealed to the Supreme Court, and after spending a year in jail he was granted a new trial on the ground that he had not been permitted to introduce evidence showing the condition of his business.

His third and last trial was held last month, Mr. Sykes conducting his own case, and he was allowed to introduce such evidence and ask such questions of the jurors as suited him. But nevertheless the jury found him guilty, and fixed his punishment at two years in the penitentiary. However, Mr. Sykes was not to be discouraged by an adverse decision, and he made a motion for a new trial. In his motion for a new trial he claimed that the Merchants' Loan and Trust Company had changed its name under a law that had

been pronounced unconstitutional, and therefore there was a flaw in his indictment, for he should have been charged with defrauding the Merchants' Savings, Loan and Trust Company. He also claimed that the complaining witness had no right to employ private counsel, and that the oath had been administered to the jury in an informal manner. These and other objections were overruled.

The court then sentenced him to two years in the penitentiary. Mr. Sykes immediately asked that his bail be continued in order that he might make copies of the records and evidence necessary to make an appeal to the Supreme Court. This was denied, but he was allowed two months to make his appeal. While it is possible that Sykes may be granted a new trial, still there seems little chance of his keeping out of the penitentiary, for the bank is very anxious to get the new warehouse law into operation. At present the banks are almost compelled to loan money to a merchant who presents a certificate showing that he has so many bushels of grain in his warehouse, and it was more for their protection than anything else that the law was enacted.

Mr. Sykes' appeal was on purely technical grounds, and it is very probable that the Supreme Court, when it gets around to it, will sustain the decision of the lower court. During the interim Mr. Sykes will spend his time in jail, which will be in addition to his two years in the penitentiary.

## BRITISH CAPITAL IN AMERICAN ELEVATORS.

While Mr. Gautier de Saint Croix's Scandinavian elevator scheme did not materialize last year, he is again in this country on the same or a similar mission. And it would seem that he has done missionary work among his fellow citizens across the water; for all at once there has been a sudden interest taken in our grain and flour interests by British capitalists. The sale of the Van Dusen line of elevators is chronicled elsewhere, and it is no secret that negotiations have been in progress for the elevators at St. Louis and East St. Louis. The options secured by the British syndicate on the Washburn and Pillsbury mills at Minneapolis, and the Pillsbury line of elevators, expired on July 25, but that has not, we are told, put an end to negotiations. The British capitalist, it seems, is tired of manipulated railroad securities and wants to invest his money in something tangible. And he is apparently willing to pay about two prices for it, judging from the brewery deals.

## BUYING STORED GRAIN FROM WAREHOUSEMEN.

Judge Hicks recently made a ruling at Minneapolis that is of interest to grain dealers in general and of especial interest to those of Minnesota. Suit was brought by George W. Hall against C. A. Pillsbury & Co., to recover a certain quantity of wheat which he had deposited in the elevator of G. W. Elile & Co., at Stewart, Minn., and which that firm had shipped out and sold to Pillsbury & Co. Judge Hicks' decision was on a demurrer of the defendants which he overruled. The amount deposited by Hall in Elile & Co.'s elevator was 2,653 bushels, and 1,509 bushels of this wheat Elile & Co. sold to Pillsbury & Co. When Hall demanded his wheat of the elevator company, wheat was 37 cents a bushel, but all demands, either to return the wheat or pay the money, were unavailing. Similar demands were made upon Pillsbury & Co. The important point in the case was whether under the act of March 3, 1876, regulating the storage of grain, a purchaser of grain from a warehouseman is bound to acquaint himself with the warehouseman's account current with the public, or run the chance of buying grain which does not belong to the warehouseman, and which he, the purchaser, will have to restore to the owner or pay its market value in addition to the money paid the warehouseman.

Judge Hicks was of the opinion that the purchaser should acquaint himself with the ware-



houseman's account; and said that "the depositor of grain for store with the grain warehouseman becomes by such deposit the owner of an equal amount of grain of a like kind and grade of that deposited by him; and that in all respects the holder of the warehouse receipts for such grain has the same rights to such amount, kind and grade of grain as he would have had to the identical grain had he made a special deposit thereof and contracted in his receipt for the redelivery to him by the warehouseman of the identical grain for which the warehouse receipt was given."

In distinguishing between bailment and sale of grain, Judge Hicks expressed himself as being of the opinion that the language of the statute which says that "such delivery shall in all things be deemed and treated as a bailment and not as a sale" was to prevent certain abuses which previously existed, and that the remedy sought by the legislature was to make the depositor the absolute owner not of the identical wheat, but of the same amount of a like kind and grade as that deposited.

### A REMEDY FOR GRAIN SHIPPERS' WRONGS.

There are a number of abuses which the grain shippers of the country are at present forced to put up with that could just as well be done away with, but which never will be until the shippers rise in a body and demand justice. They will undoubtedly put up with these impositions as long as possible, for by long standing they have become so accustomed to these abuses that they do not mind them. But the time will come that our grain shippers will find themselves sinking under the oppression of these wrongs, and then they will do as men always do when they find themselves oppressed by grievous wrongs—organize societies and associations, and fight their oppressors.

One of the greatest wrongs which the shippers are now allowing to be imposed upon them is that they allow the railroads to give them a way-bill for their grain, which is not a definite receipt for the number of bushels they loaded in the car, but is a receipt for a carload of grain "said to weigh — pounds, subject to correction." It matters not whether the grain is weighed at the point from which it is shipped or not, it is subject to correction at the point of destination. It is seldom if ever that the old, leaky freight cars which are given the shippers to load their grain in contain as much grain when they arrive at their destination as when they started.

Then, too, at a number of grain centers the grain is weighed on track scales which never give the correct weight, are frequently three or four hundred pounds out of the way, and sometimes five hundred. Sometimes the car is weighed when coupled to others, and during the winter the empty car is frequently returned to the scales to be weighed when it is covered with snow and ice. Wind, snow, rain, sleet and stormy weather of course never have any effect upon track scales that are out in the open air. Users of track scales at any of our large grain centers will verify this statement, and with considerable force, too, for the simple reason that they can weigh the grain to suit their own interests on the track scales.

A shipper does not like to complain every time there is a shortage of a few hundred pounds on a carload, for if he did do so he would be complaining all the time. His complaints are met by claims of inaccurate weights. He accepts the explanation and stands the loss, seldom if ever suspecting that any one is intentionally defrauding him of such a small amount of grain. But if any one did systematically steal a few bushels of grain from each car he shipped, he would accept it as an inaccuracy in weight and say nothing.

Taking the average receipts of grain at St. Louis, Peoria, Chicago, Milwaukee, Duluth, Detroit, Toledo and Minneapolis for the years 1884 to 1888 inclusive, we find that by abstracting one bushel from each car, the shippers sending grain to these points would have been defrauded out of nearly a million bushels of grain each year. It is not in the least improbable that the grain shippers

did lose this much on account of inaccuracy in weights. Inaccuracy in anything furnishes a great blanket under which to hide fraudulent transactions. It is an open door through which fraud is constantly tempted to enter.

Shippers should demand accuracy in the weighing of their grain, and if the laws do not provide that the railroads shall be required to weigh the grain upon receipt, and to deliver at the point of destination the amount received, or else make good the loss, the shippers should band together and have such laws passed. Illinois has a law which requires the railroads to carefully and correctly weigh all grain received for transportation, and to give the shipper a bill of lading in which is stated the true and correct weight of the grain, and that they shall weigh out and deliver the full amount of such grain without any deduction for leakage, shrinkage or other loss in the quantity of the same. It requires that scales shall be put in at points from which 50,000 bushels or more were shipped the previous year, and at points where there is no scales the railroad shall accept the sworn statement of the shipper as to the amount of the grain. The railroad companies are required to make good all shortages, and may be fined very heavily for disobeying the law.

Even with the Illinois Railroad and Warehouse Law in his favor, it is useless for one grain shipper to commence war against a wealthy corporation in hope of obtaining justice from them. The only panacea for this, as well as other crying abuses from which the grain shippers are suffering, is to be found in organization. With strong societies acting together they could obtain just treatment from the railroads at least.

### THE BUFFALO SENSATION.

The grain shortage case at Buffalo has produced a genuine sensation in that city. Just what charges are true against the firm of Sherman Brothers, and where the real responsibility lies, have not been fully determined. The charges against the firm are: Early in July the grain inspector was informed that the firm delivered bad wheat, and one of his aides detected a shipment of mixed grain made to the East. Following this came the disclosure that the firm had been getting two prices for wheat. Advances had been obtained from different banks upon warehouse receipts which were deposited with the bankers, and the wheat had been sold and delivered without taking up the warehouse receipts. Wherever the grain and money went to, the shortage amounted to over \$300,000, to secure part of which the firm handed over \$200,000 in elevator stock as a part of their assets to secure their associates in business. Numerous suits have been instituted. It was stated that the firm could pay 30 cents on the dollar and the balance in one year. Criminal proceedings have been commenced against one of the firm and his assistant. The other member of the firm is sojourning in Canada.

### THE ST. PAUL AND FULTON ELEVATOR CASE.

Judge Gresham in the United States Circuit Court recently decided the great St. Paul and Fulton elevator case, which has been in the courts for some time, and gave judgment for about \$42,000 in favor of the plaintiffs, Munger, Wheeler & Co. The case is of especial interest owing to its connection with the attempt to corner the wheat market in 1886 and 1887.

In 1880 Jesse Hoyt, Perry H. Smith and a number of other capitalists leased from the St. Paul Railway Company three lots in Chicago for a term of ten years, upon which they agreed to erect an elevator, with a capacity of 700,000 bushels, pay an annual ground rent of \$3,850, and all taxes and assessments, furnish the railway company with storage capacity for at least 1,000,000 bushels of grain in the elevator to be erected and in the Fulton elevator near by, which has a capacity of 350,000 bushels, and is owned by plaintiffs.

In the contract between the parties the railway company agreed that the total amount of grain

received at the elevators should be at least 5,000,000 bushels, on an average, for each year during the term of the lease, and in case it fell short of that amount, the railway company was to pay the plaintiffs one cent per bushel on the amount of such deficiency, settlements to be made at the close of each year. But if at the expiration of the lease, the total receipts for the ten years was equal to or exceeded 50,000,000 bushels, the amount so paid by the railway company on account of deficiency was to be refunded.

In 1886 the elevator men received from the railway company and stored in the two elevators only 2,826,821 bushels of grain and the following year they received and stored 2,957,592 bushels. During this period the entire storage capacity of the elevators was constantly occupied. Although the plaintiffs repeatedly refused to receive additional grain tendered by the railway company, their refusal was always based upon the ground that the elevators were full and contained more than 1,000,000 bushels. The railway company agreed that so far as it could it would deliver to the plaintiffs for storage all the grain it carried to Chicago, and if during any year of the lease the plaintiffs should receive less than 5,000,000 bushels, whether tendered or not by the railway company, it would pay the plaintiffs one cent per bushel on the deficiency.

This was inserted in the contract to meet just such an emergency as occurred. Both parties to the contract knew that such a thing was very likely to occur. The judge decided that the meaning of the contract was plain enough, and the plaintiffs were entitled to judgment for the amount sued for. The case will probably be appealed to the United States Supreme Court.

It seems that until 1886 the elevator men received the stipulated 5,000,000 bushels, but in 1886 and 1887 the elevators were filled to their full capacity, and owing to the wheat corner they remained so, the consignees being unwilling to withdraw their wheat. Another suit is pending in the state courts between the same parties on precisely similar grounds to recover \$31,000.

### INSPECTION CHARGES AT DULUTH.

Duluth elevator and grain men are actively agitating the question of a reduction of the cost of inspection and weighing of grain at that point, and are making an extra effort to have the double charges on corn and through shipments on bonded wheat from Manitoba reduced. The charges have become considerable of a burden upon the shippers as well as the producers, and Duluth grain men are of the opinion that the railway and warehouse commissioners are altogether too strict in their interpretation of the laws, and that in many cases the rules are arbitrary and unjust. Not long since the commissioners were asked to allow the shipment of corn East without the inspection out, but refused. The corn was practically shipped through and a single inspection was all that was necessary. And as Duluth grades for corn had no standing in Eastern markets the out inspection was useless. It is claimed that unless all unnecessary restrictions and charges are done away with shipments from Manitoba and the Northwest will not be made by way of Duluth to Eastern points, but will go to Chicago or Port Arthur, Ont.

The Duluth Board of Trade held a special meeting to consider the matter and adopted a resolution stating that the fees charged by the state for inspection and weighing of grain, amounting to \$1.80 per thousand bushels for grain in and out of warehouses, was too much of a tax, and that it could be done for less. They also deprecated the accumulation of the surplus money from this source, and the paying of fat salaries to state officers, and petitioned the commissioners to reduce the charges at once.

Last year \$90,204 were collected for weighing and inspecting grain, and \$81,497 were expended, leaving a balance of \$9,935. The total surplus accumulated by the department is \$30,192. Then, too, in spite of a poor crop last year, the force was increased from sixty-one to seventy-three and the salaries raised. Duluth did not handle much grain last year, and the poor crop again this year



in the Northwest will not permit of great quantities being received there unless the commissioners will do the right thing by the grain men at that point and grant their petition.

## Editorial Mention.

A NUMBER of gentlemen who are to be grain inspectors in Missouri, have been in Chicago lately getting pointers on how to tell wheat from corn.

CHICAGO has been enjoying something of a boom in winter wheat. During July 1,500,000 bushels were shipped into this market, the largest on record except July, 1882. Some think that Chicago will have a large winter wheat trade from now on.

KANSAS certainly has cause for self-congratulation. In hay, oats, barley, potatoes, flax, alfalfa, the yield has been the largest known in years; while some of the enthusiastic people place the wheat yield at 40,000,000 bushels and the prospective corn crop at 300,000,000.

THE wheat crop in the Northwest, on the authority of A. B. Robbins, manager of the Northwestern Elevator Company, will be the best in six years. Col. Rogers of the *Market Record*, places it at 90,000,000 bushels. In quality, barring unlooked-for results, the wheat will be magnificent, and 60-pound wheat will be no fiction.

THE Senate Inter-State Commerce Committee did not get much comfort in Chicago on the question of the competition of the Canadian roads. Chicago and New England have good reason to be grateful to the Canadian roads, and for the friendly service which they have always given. Chicago grain shippers have fully appreciated this fact.

MINNEAPOLIS elevator companies, it is said, are undecided whether to take out licenses and have their houses classed as public warehouses or to operate them as private warehouses the way they did last year. If they conclude to run them as private warehouses, it is to be hoped that they will not give cause for as much complaint about mixed grain as was made last year.

THE "Excelsior" Dustless Separator for warehouses and elevators appears to be getting to the front rapidly. The manufacturers claim many points of superiority over other machines, leaving it to the machines to bear them out. The "Excelsior" separators are now being manufactured solely by the E. H. Pease Manufacturing Company, Racine, Wis.—the oat clipper builders.

MR. J. HOWARD JONES, who has been connected with the Chicago Board of Trade for fifteen years, has formed a business connection with *Daily Business*. Mr. Jones was chief clerk of the Grain Inspection Department at Chicago for seven years, and while there became familiar with the grain trade and gained many friends among grain merchants. Mr. Jones has our best wishes for success.

OUR statement in last month's issue in regard to the refusal of the St. Anthony Elevator Company of Minneapolis, to pay taxes on wheat stored in their elevators, conveyed a wrong impression. We gleaned our facts from St. Paul and Minneapolis papers and supposed them to be reliable. The elevator company did not object to wheat in store being taxed, but did object to paying taxes on wheat stored in their elevators which was owned by outside parties and for which they had issued warehouse receipts. The company was very right in objecting, and after investigating

the subject the Board of Equalization decided that the elevator company could not be assessed for the wheat in store.

A CASE arising from the great wheat deal of Isaac Friedlander of ten years ago was quite recently decided in the Superior Court at San Francisco. The action was commenced for the purpose of redeeming certain lands which Chapman and Friedlander conveyed to the Bank of California as security for indebtedness on notes amounting to over \$700,000 with interest at 10 per cent. The suit, which was brought by Chapman, was decided in favor of the bank.

ENGLISH, MORSE & Co. of Kansas City, Mo., write us that business is good in their various lines. They are making a specialty of complete steam plants for all kinds of service, furnishing Corliss or high-speed engines and boilers to suit special service. They carry a full stock of supplies, including steam pumps, heaters, belting, Dodge Wood Split Pulleys, brass goods, and a full line of Lidgerwood Hoisting Engines; also a full line of ventilating apparatus, including Sturtevant Fans, with or without power.

THE Agricultural Department has ordered from France five varieties of winter wheat, three of which are of Southern origin, and are recommended as rust proof. The other two are new wheat crosses made by Vilmorin of Paris. They are "Richelle de Nahles," white bald wheat or "Zilande," also white bald wheat, and "Rieti Red," bearded variety. Two are a cross of the "Prince Albert" and winter red bearded Chillum, both English wheats acclimated in France. The other is the "Lamed," a cross of the "Prince Albert" and the "Noe," an Odessa wheat with a blue stem.

THERE has been considerable complaint of late about the dockage made by elevators in receiving grain, and in the hope of finding some system that will be more accurate and satisfactory to both receiver and shipper, we extend a special invitation to our readers to make known their views on the subject through the columns of the AMERICAN ELEVATOR AND GRAIN TRADE. It must be admitted that the allowance for shrinkage and loss in handling is not made with as much accuracy as it should be. There seems to be no system or method followed in making the dockage, and there is large variation in the percentage taken.

ON July 24 the New York Produce Exchange commenced sending quotations to St. Louis, Toledo, Detroit, Indianapolis, Buffalo, Duluth, Chicago, Minneapolis, and a few days later Milwaukee, Cincinnati and Louisville were added to the list. The Produce Exchange had often tried of late years to have its quotations circulated about the country, but failed because there was no demand for them as long as the Chicago Board of Trade quotations could be obtained and its final success was due entirely to the Board's protracted fight against the bucket shops. As the Board has again taken to furnishing quotations to all parties it is very likely that the demand for the Produce Exchange quotations will cease.

ACCORDING to *Bradstreet's*, the stocks of wheat at about 900 points in the United States and Canada east of the Rocky Mountains on Aug. 1 were 16,071,576 bushels, against 29,176,957 bushels on Aug. 1, 1888, and 20,384,549 bushels on July 1, 1889. But there was a net increase of 5,323,400 bushels in the visible supply of California, Oregon and Washington for the first four weeks of July which overbalances the decrease of 4,312,973 bushels at the 900 points east of the Rockies, and shows an increase of over 1,000,000 bushels instead of a decrease in the visible supply. The stocks of corn on Aug. 1 were 9,357,763 bushels, against 12,361,565 bu. on July 1 and 9,689,798 bu. on Aug. 1, 1888, showing a decrease for the month of July of 3,003,802 bushels, or nearly 25 per cent. The stocks of oats aggregated 5,895,259 bushels, against 7,470,989 bushels on July 1,

and 3,889,732 bushels on Aug. 1, 1888. The stocks amounted to 432,745 bushels, against 454,167 bushels on July 1, and 185,687 bushels on Aug. 1, 1888. The stocks of rye aggregated 897,779 bushels, against 986,345 bushels on July 1, and 154,576 bushels on Aug. 1, 1888.

WE want our readers to write to this paper. We want items of news, opinions, suggestions and questions. It will be a good thing for the grain men of the country to get a little closer to each other and have frequent exchange of opinion as to how abuses may be abolished, wrongs righted, and the evils of competition regulated or reduced to a minimum. Let us hear from you, no matter how much or how little you have to say.

WORD comes that the Northern Pacific and the Northern Dakota Elevator Companies have come to an equitable arrangement whereby they will not renew the destructive competition of last year. They have arranged to operate elevators at alternate towns instead of each having a house at every station. Of course the farmers denounce this as a combine; but they cannot expect to always get more for their wheat than it is worth; as they certainly did last year.

AN Illinois farmer writes to a Chicago paper advising farmers to hold their oats for 40 cents, corn for 50 cents and wheat for \$1 per bushel. He thinks that if farmers would do this, the situation would be revolutionized in a few weeks. Of course that is possible but not probable. If the speculators, whom the farmers aver control the markets, are unable to hold up prices by shutting off supplies and killing the export trade, it is not likely that the farmers will be able to create a corner by holding off their produce from the market. This is a large world, and it raises a pile of "truck."

A SPECIAL flax circular has been issued by L. Everingham & Co. of Chicago, covering Nebraska, Kansas, Dakota, Iowa, Minnesota, Missouri, Illinois, Indiana, Ohio, Wisconsin and Oregon, in which the crop is estimated at 9,210,280 bushels, against 8,500,000 last year, 9,500,000 bushels in 1887, 12,000,000 bushels in 1886 and 13,250,000 bushels in 1885. They state that the elevators are empty of flax and that the Oil Trust which controls elevators with a capacity for 300,000 will make a great effort to depress prices. Most of the crushers are idle and the stock of oil is smaller than for many years, so the demand will be good.

THE New York Produce Exchange has a rule prohibiting "curb trading," or dealing in options after exchange hours, and every now and then its officers try to enforce the rule, but without permanent effect. At different times members have been suspended. To avoid this penalty several gentlemen representing the grain trade recently appeared before the grain committee of the Exchange and urged the repeal of the rule. The grain dealers claim it is impossible to enforce the rule and that at times they were forced to violate it in order to prevent the loss of their business. While the repeal of the rule might materially aid the grain dealers and probably prevent some of them paying the penalty for breaking the rule, still it is very doubtful whether the grain committee will recommend its repeal.

THE president, secretary, and several members of the Northwestern Iowa Grain Shippers' Association were before the Iowa Railroad Commissioners recently to consider questions growing out of the decision of the Inter-State Commerce Commission affecting grain shippers. The Iowa shippers have the rate they wanted, and are now trying to secure damages for past discriminations. They have been seeking the aid of the Iowa Commissioners but have received little encouragement. For a long time a number of shippers on the Northwestern Railway had to pay a much higher rate than shippers at neighboring points on other roads, then, too, this road discriminated between different points on its own line and thus greatly injured the business of a number of grain



merchants. It is right and just that they should be paid damages for such outrageous discriminations, if they do not, they will discriminate between points whenever it is to their advantage to do so.

St. Louis had a little corner in July corn, which was engineered by Orthwein Bros. The stock of No. 2 corn in store at St. Louis on July 30 was only 47,725 bushels, and Orthwein Bros. were long several hundred thousand bushels. Chicago parties, among whom was Dunn & Co., were short between 200,000 and 300,000 bushels. These and several St. Louis parties who were short refused to accept 42 cents as a settling price, which had been decided should be the basis for settlement by the Merchants' Exchange committee on contracts for future delivery, so a special committee was appointed to give the case another trial, and it was decided that the shorts should settle at 40 cents, which they considered a reasonable price for cash corn on July 31, and in addition must pay 5 per cent. as a penalty for kicking. If people will insist on selling what they do not possess or cannot buy they will have to suffer.

An effort is being made to have Manitoba wheat shipped in bond by way of Duluth to Eastern Canada without having it weighed and inspected by the Minnesota authorities. The Northern Pacific Railway Company has made arrangements with A. J. Sawyer to use a certain portion of his elevators at Duluth for Manitoba wheat exclusively, and has also arranged with the United States authorities to have it shipped through in bond. If they can avoid paying the charges for weighing and inspection which the Minnesota law requires shall be made of all grain entering public elevators in that state, the Northern Pacific will carry a large amount of Manitoba wheat to Duluth for shipment by water to Eastern Canada. The warehouse commission has promised to consider the petition and very likely will grant the desired exemption from weighing and inspection.

Last year Gautier de Ste. Croix, a grain merchant of London, England, spent some time in this country trying to interest wheat growers and small elevator men in a scheme to bring them in direct business relations with British millers, but did not accomplish much. He has returned again this year and is located at Duluth. He proposes to act as intermediary between the miller and shipper, to have the wheat shipped from the farmer or country elevator through him to the English miller, the principal object being to have the wheat arrive in England unmixed. A number of English grain merchants and millers have indorsed the plan and Mr. de Ste. Croix will act for prominent merchants in London, Liverpool and Leith. He thinks there is more profit in shipping wheat than flour across the Atlantic, and says he is sure of success. Although he has made arrangements with Buffalo and New York shippers and elevator men there is little probability that he will do any better for the millers than the grain men of the Northwest could have done had they received specific orders direct from the millers.

SOME time ago a committee from the Chicago Grain Receivers' Association appeared before the Illinois Railroad and Warehouse Commission to discuss the question of having samples of grain from the cars furnished by the State Grain Inspection Department. At present the inspection for both receiver and buyer is done by private parties, and of course is rather expensive. After considering the whole subject carefully, the association came to the conclusion that it would be unwise to place it in the hands of the Inspection Department, and petitioned the Board of Trade to organize a department for the sampling of grain on the same basis as that at present practiced in the inspection of flax, flour and provisions. The Receivers' Association expressed itself as being of the opinion that through having the official sampler draw originally a large enough sample to give the seller one-half to sell by and retaining the remainder in his office for

comparison by the buyer the necessity of resampling the car would then be obviated, and the unloading or transferring of grain would thus be very much expedited.

AMONG our communications this month is one from "Scale Expert," in which he defends the Lake Shore & Michigan Southern Railway Company against the charges of stealing grain by means of doctored scales. We derived our information from numerous newspaper reports, and as the Lake Shore Company has made no denial it seems evident that there is some truth in the charges. In the absence of any better system it is all right to take a fixed percentage from each load if the farmer is notified, but when it is taken by means of doctored scales and on the quiet it looks as if somebody was intentionally defrauding the farmer. Farmers may submit to being docked a sufficient amount to allow for shrinkage and loss in handling, but we doubt whether they will allow themselves to be docked enough to accumulate 9,000 bushels at a small way station in one year, and this too, was in addition to the amount required for shrinkage and loss in handling. A surplus of 50 or 75 bushels is not so bad, but when it gets to be 400 or 500 bushels it shows that there is a wrong somewhere that needs righting. It is such things as are charged against the Lake Shore Company that leads farmers to form companies for the purpose of entering into the elevator and grain business, which is detrimental to the grain trade, and in the long run is detrimental to our agricultural interests.

## DOTS AND DASHES.

The green grain louse has attacked the rye in the neighborhood of Stone Ridge, N. Y.

Most every paper is publishing cereal stories now, or plainly speaking, lies about yields of grain.

When a grain field has got about all it can hold it is ready for some mow — *Glen Falls Republican*.

It is claimed that Benjamin Franklin introduced broom corn into this country. Having found a single seed in a brush, he planted it, and it grew.

The Illinois Board of Agriculture estimates the area seeded to oats in the state at 3,850,000 acres. Last year 3,833,000 acres were planted to oats.

A correspondent of the *Pioneer Press* at Vandervoort, S. D., claims that the gophers cause the failure of the wheat crop by eating off the stalks.

Carry the news to Missouri—millions of bushels of corn in Kansas for "hog and hominy," but none for sour mash whisky. — *Oskaloosa Independent*.

Boy (reading history): "Pa, are dishonest people still punished by the stocks?" Pa (who speculates a little): "Occasionally, my son; occasionally; down on Wall street." — *Fr.*

According to the *Farmers' Review* the oat crop of the present season will be the largest ever harvested in the United States, but the yield will not be as heavy as was at first anticipated.

Those disposed to speculate had better wait till the report of the "total failure" of wheat in Europe is verified. If it shall then be too late to speculate it will be just as well. — *Chicago Journal*.

It is reported on very good authority that Harper, the notorious grain speculator, will not be pardoned by the President, but will be obliged to serve out his term in the penitentiary, which he justly deserves.

The biggest trust ever known was the famous corn trust formed by Joseph in the land of Egypt many years ago. The time has been so very long that most of our "oldest inhabitants" have forgotten all about it. — *Arcadia Sentinel*.

The American Grain-Door Company of Louisville, Ky., is putting on the market a new grain door—the "American"—designed by Clifton D. Pettis, for which letters patent are pending, and for which superior merit is claimed.

"This sunny weather will do one thing John Sullivan can't," said Farmer Thistlepod, deftly dropping a big stone in the sack of wheat. "What's that?" asked the summer boarder. "Put a head on the cabbage." — *Burdette*. The head that farmer deserved to have put on

him by the dealer to whom he sold his wheat could only be put on by a Sullivan.

An inventor of Austin, Tex., has invented a steel corn-husker, which being drawn by a team, picks and husks the corn at the rate of eight to twelve acres a day. The team and machine move astride the row of corn and every ear, large or small, is gathered.

A wheat pest has appeared in the neighborhood of Port Colborne, Ont., which is supposed to be the wheat thrips. It is a small green insect, a little larger than a moth, and has six legs. The wheat does not fill out at the bottom of the heads, and the chaff becomes white.

It is reported that Marshall county, Ind., will have a larger crop of wheat this year than ever before. The average yield is thirty-one bushels per acre, and many fields run as high as forty-five bushels. The yield of the county is estimated at 1,200,000 bushels.

A South Dakota editor claims among many other things that that soon-to-be-a-state produces better wheat than Russia or India, and more corn than Egypt. That district may surpass Egypt in producing corn, but when it comes to mummy wheat Dakota will get left.

The *Northwestern Farmer and Breeder* states that while it is everywhere conceded that the wheat crops of Dakota will be light, still the indication while harvesting is being engaged in is that the yield will be a third better in many localities than was anticipated, and the quality the very best.

From Minnesota come reports of immense yields of barley. On Hamilton's farm, near Winona, 1,700 bushels were harvested from twenty-five acres, an average of sixty-eight bushels to the acre. At St. Charles 2,700 bushels were threshed from fifty acres, an average of fifty-four bushels to the acre.

It is reported that the office of chief deputy grain inspector at St. Paul, Minn., now held by Mr. Hodgson, is to be abolished, the chief inspector performing the duties, while the salary will be given to the new chief weighmaster. For several years the office of weighmaster has been without remuneration.

During the cereal year ending June 30, 1889, 1,314,972 cents of barley were exported from California. Of this amount 358,293 cents were shipped overland from the state, 294,326 cents went to New York by water, 438,660 cents to Europe, 65,346 cents to Australia and 158,347 cents to other places.

It is said that the effect of "Old Hutch's" tricks with the Chicago grain market is felt around the world. This may be true enough, but nobody on the other side of the earth can possibly be so grievously pounded by the old speculator as some prominent Board of Trade members were a few short months ago. — *Chicago Journal*.

Entomologist Weed of the Ohio Agricultural Station, has prepared a circular in regard to the green louse, in which he says it is one of the most notable insect outbreaks that has occurred in that state in many years; that it has already seriously injured the wheat, and when the circular was issued it was attacking oats and other grains.

Col. J. A. Price of Scranton, Pa., offers through the *Decorators and Furnishers* of New York, three prizes of \$50, \$30 and \$20 for themes on corn, the use of the plant and fruit in the industrial and architectural arts. The idea was suggested by recent discussions as to the flower which might have been used as an emblem of the United States.

Canadian farmers are still anxiously hunting for a market for their barley. They are rapidly losing their market in the United States, their barley being displaced by home-grown barley. Chevalier barley, which is seldom raised in Canada, is best suited to the wants of the British brewer. So they are greatly perplexed as to what to do with their barley.

W. I. Burnett has two men at work on his place south-east of town rinsing the smut from 1,000 or more sacks of wheat. The wheat, after going through the process, is worth just 30 cents more per hundred than before. The two men earn \$15 per day in the operation. The process is very simple. Near his artesian well two large troughs have been built, into which empties a spout from the well. The wheat is dumped into the troughs and the water turned on, the grain being stirred to loosen the smut, which rises to the surface and floats off. All the oats and other foreign substances are also removed and the wheat is absolutely clean. He was offered 85 cents for it before rinsing, and is now offered \$1.15. That beats sending it to the smut mills — *Register, Tulare, Cal.*



## PERSONAL

Geo. M. Gilman has been appointed grain weighmaster at St. Paul, Minn.

Mr. Joe Heauey will have charge of the elevator that is to be built at Goodhue, Minn., by Geo. H. Davis.

Owen Morgan, grain dealer at Ivesdale, Ill., had a very painful operation performed recently for a disease of the bone of the lower jaw.

Mr. J. N. Burks of Farmington, Mo., has been appointed chief grain inspector for Missouri by the Railroad and Warehouse Commission.

Mr. Rowell, the manager of the elevator at Lake Mills, Iowa, is eighty years of age, but attends to business with all the vigor of a young man.

Thomas Morrison, president of the Cincinnati Chamber of Commerce, has gone to Ireland to settle the estate of his brother, who died recently.

John W. Cross, an experienced grain man of Duluth, Minn., was appointed chief assistant to Chief Deputy Grain Inspector Fulton of that city.

Mr. John Shely, formerly chief deputy grain inspector at Duluth, Minn., has been transferred to Minneapolis to succeed Inspector Clausen, who is now chief inspector for the state.

Mr. James Everington, general elevator man for one of Minneapolis' leading milling firms, claims to have discovered a way for preventing the dirt in wheat from settling to the bottom when placed in a bin.

It has been reported that Mr. P. C. Himebaugh, formerly of the firm of Himebaugh & Meriam of Omaha, Neb., had withdrawn from the new grain company formed recently at that place. Later reports state this is incorrect.

Mr. Frank C. McCloud, until recently a grain receiver's agent for the C. & Q. R. R. in this city, has gone to California to take possession of an estate valued at \$2,750,000 left him by his mother, whom he had supposed to be long dead.

Mr. C. S. Fulton has been appointed chief deputy grain inspector at Duluth, Minn. Mr. Fulton has been engaged in the grain business for over twenty years, and for the last five years he has been employed as private inspector for George Spencer & Co., a leading grain firm of Duluth.

Mr. P. Austin Saunders, the well-known and popular grain inspector of Chicago, is spoken of as a candidate for alderman from one of the new wards. If elected he will undoubtedly show his ability as an inspector by inspecting and exposing boodle aldermen and dishonest officials.

John Allen, once so prominent in the grain trade of New York City, accompanied by Prof. E. H. Platt, left there May 14 on horseback to ride across the continent. They arrived in Denver, Col., July 21. They have met with no accidents, and expect to reach San Francisco in October.

On the evening of July 5 Donald Irving, a grain commission dealer of Duluth, Minn., and Miss Eliza Freeman of Cleveland, Ohio, were united in marriage at Superior, Wis. For the past seven years the parents had succeeded in keeping the lovers apart, but finally the young lady left home and met her lover at Superior.

## GOVERNMENT CROP REPORT.

The August crop report of the Department of Agriculture issued Aug. 10 makes the condition of corn 94.8; spring wheat, 81.2; spring rye, 95.4; oats, 92.3; barley, 90.6; buckwheat, 95.2; potatoes, 94.3; hay, 94.5; tobacco, 94.4.

Corn has made an improvement during the past month of  $\frac{1}{4}$  points, and is now less than one point lower than at the same date last year. The August return of condition has not stood more than one point higher during the past nine years, and the present return has been equalled but three times during that period. The improvement is quite generally distributed throughout the country, following favorable growing weather and sufficient rainfall. In a few states, especially along the Atlantic coast, the condition has been somewhat reduced from excessive rainfall, and local floods and overflows, while in many other districts where improvement is noted similar causes have prevented full cultivation, and thus lowered what otherwise might have been nearly perfect condition.

In Ohio, Michigan and Indiana the results of early unfavorable meteorological conditions are being overcome, and the crop prospect is rapidly improving. The drouth which in portions of the Northwest threatened the crop, has been broken by seasonable rains, and the present returns show high condition in that section.

The figures for the principal states are: Ohio and Indiana, 87; Illinois, 90; Iowa, 100; Missouri, 96; Kansas,

102; Nebraska, 101; Texas, 99; Tennessee, 98; Kentucky, 97.

The general average for the seven surplus states is 95, against 90 last month, and 96 for August, 1888.

Spring wheat has suffered a further falling off during the month, the decline amounting to nearly three points. The condition is now nearly three points higher than in 1887, and one above that of 1886. With these exceptions it is the lowest since the very small crop of 1881. Minnesota records some improvement since last report, but in Dakota there is a further decline from the same causes noted last month. Dakota is now the largest spring wheat state, and the very low condition there reduces the general average. In the rest of the spring wheat district the condition is generally good—perhaps above the average for a recent series of years. Averages in the principal states are: Wisconsin, 90; Minnesota, 93; Iowa, 94; Nebraska, 91; Dakota, 57; Washington, 75. The quality of the crop will be better than usual, especially in the extreme Northwest.

Rye and barley each decline one point, the falling off being mainly in Nebraska and Dakota.

Condition of oats, while two points lower than reported last month, is higher than August of any year since 1885. In many sections the crop has suffered from heavy winds and rains about harvest time, and the next report may show damage from this cause not yet appreciated. Potatoes have maintained their high condition of a month ago, and now stand one point higher than at this date last year. Tobacco has fallen off materially on account of excessive rain. The decline is especially marked in the Atlantic states and in Indiana. Fields are full of weeds, and there has been a lack of sunshine for proper development. Averages in leading states: Pennsylvania 99; Maryland, 66; Virginia, 80; Kentucky, 81; Ohio, 93; Indiana, 55; Wisconsin, 93.

## THE EXCHANGES.

Tickets of membership to the New York Produce Exchange have been dull at \$1,000.

The Western Union Telegraph Company has advanced its rate on quotations to the St. Louis Merchants' Exchange two cents per word.

The Indianapolis Board of Trade has a full membership of 500 and its financial condition is better than ever before, there being a surplus of \$6,000 in the treasury, and the income from their building is good. There is some talk of a new building.

It is reported that the New York Chamber of Commerce will soon commence a crusade against the Chinese Exclusion Law as being detrimental to trade, and that other commercial bodies will be invoked to unite in urging upon Congress the necessity for the repeal of the law.

The Grain and Flour Exchange of Pittsburg has elected the following board of directors: D. G. Stewart, R. D. Elwood, B. McCracken, John Hood, S. L. McHenry, R. S. McCague, James Herron, C. F. Horning, J. C. Houck, S. McNaugher, S. R. Patterson, B. F. Veach and J. Dunlevy.

The San Francisco Produce Exchange held its annual election July 16, and the following officers were chosen: President, Barry Baldwin; vice-president, J. Newman; treasurer, James Hogg; directors, S. Schwabacher, T. G. Walkington, G. W. McNear, C. B. Stone, Jackson Hart and C. H. Maddox.

The large dealers in hay in New York City are making an effort to establish an organization to be known as the Hay Exchange. On July 31 a preliminary organization was effected under the name of the Wholesale Hay Dealers of New York, and committees were appointed to draft a constitution and by-laws.

The directors of the Chicago Board of Trade have appointed the following members as delegates to the meeting of the National Board of Trade, to be held at Louisville, Ky., on Oct. 16: George M. How, Wm. T. Baker, Wm. J. Pope, George D. Rumsey, D. E. Richardson, H. H. Aldrich, E. S. Washburn, Geo. H. Sidwell, Murry Nelson, R. W. Dunham, W. H. Beebe.

The members of the hay trade of New York City have organized a Hay Exchange. At a recent meeting they adopted a constitution and by-laws and elected the following officers: President, E. A. Dillenbeck; vice-president, Charles F. Swan; secretary, Thomas Fonda; treasurer, John Kerwin; Board of Managers, W. J. Frazee, J. W. Dusenbury, W. Affleck, G. B. Frisbee, L. S. Dillenbeck, R. B. Hungerford and Otis Schermerhorn. The initiation fee is \$10, and the annual dues will be fixed by the Board of Managers. A majority of those interested are also members of the Produce Exchange.

The Sioux City Starch and Glucose Works has been organized at Sioux City, Ia., with a capital stock of \$1,000,000. At first the works will have a capacity for 1,000 bushels of corn a day, which will soon be doubled. Corn cribs with a storage capacity for 400,000 will be built at once.

## ITEMS FROM ABROAD

Roumania's corn crop will not be extra on account of dry weather.

The wheat crop of Spain was very satisfactory both as to quality and to quantity.

The *Millers' Gazette* and *Corn Trade Journal* estimates that Great Britain's wheat crop will be 7 per cent. above the average.

Holland's wheat crop was damaged by severe storms at harvest time. The rye crop was also damaged by continuous rains.

During the three weeks ending Aug. 3, the United Kingdom imported 777,000 quarters of wheat and 739,000 quarters of corn.

During the three weeks ending Aug. 3, India shipped 1,520,000 bushels of wheat to the United Kingdom and 320,000 bushels to the continent.

The wheat crop of Belgium will be much below the average, both as regards quantity and quality. The grain is poor in color and light in weight.

It is estimated that France will have to import only 16,000,000 bushels of wheat during the present cereal year, against 56,000,000 bushels last year.

The Leeds Corn Millers' Association advanced the price of flour eighteen pence per sack on July 26, making an advance of 8s. 6d. per sack during July.

The yield of wheat in France this year is estimated at 17 bushels per acre on 17,510,000 acres, giving a total yield of 297,500,000 bushels, against 273,668,345 bushels last year.

An official map sent out from Russia shows that in three-eighths of the empire the wheat crop promises to be good; in two-eighths, fair; in two-eighths, deficient, and in one-eighth, bad.

It is estimated that Russia had from 65,000,000 to 70,000,000 bushels of wheat of last year's crop on hand Aug. 1, and Austria and France were both credited with larger reserves than a year ago.

The seventeenth annual International Grain and Seed Fair will be held on Aug. 26 and 27 at the Fruit and Flour Exchange at Vienna. All interested in the grain and flour trade are invited to attend and take part.

The industrial and commercial congress of the grain and flour trades, which has for the past two years been held by the National Association of French Millers, has by ministerial decree been converted for this year into an international congress.

Roumania, which used to supply Austria with her inferior grade of wheat for home consumption while the latter country exported her own beautiful wheat, has prohibited the exportation of wheat to Austria, so that country must now consume her own product.

At a meeting of the shareholders of the Merchants' Grain Warehousing Company at Dublin, held July 29, it was decided to combine the company with the North Dublin Warehouse Company. The new company is to be known as the Merchants' Warehousing Company, Ltd.

A Buŕa P     correspondent of the *Liverpool Corn Trade News* says the wheat crop of 1889 will not be nearly as large as those of the past two years, and estimates the crop at 11,100,000 quarters. The production in 1886 was 13,100,000 quarters; in 1887, 18,850,000 quarters, and 17,400,000 quarters in 1888. Rye and barley were reported in poor condition, maize fair.

Our consul-general at Vienna reports that Austria's wheat crop will amount to about 50,000,000 bushels and Hungary about 90,000,000 bushels, making a total of 140,000,000 bushels, which he says is 60,000,000 bushels less than last year's crop. He says the home consumption in Austria-Hungary is 155,000,000 bushels, and last year's wheat in elevators and in farmers' hands is estimated at 25,000,000 bushels.

The Bombay Chamber of Commerce has issued an official protest against the memorandum which were presented at the recent conference on impurities in Indian wheat by the London Corn Trade Association. In regard to the statement that "the natural condition of Indian wheat is to contain 4 per cent. of admixture on the Bombay side and 5 per cent. on the Calcutta," it is alleged by the Bombay Chamber of Commerce that this statement, so far as Bombay is in question, is "absolutely incorrect."

G. W. Crane, Minneapolis, Minn., has lately shipped grain elevator machinery and supplies to the following points: Durbin, Dak.; Hamilton, Dak.; Ojata, Dak.; Cooperstown, Dak.; Great Bend, Dak.; Kent, Dak.; Kirklaven, Dak.; Atwater, Dak.; Everest, Dak.; Dazey, Dak.; Havana, Dak.; Winnipeg, Man.; Plum Center, Man.; Keewatin, Ont.; Herman, Minn.; Aberdeen, Dak.; Croighton, Neb.; Steele, Dak.; Ridge, Minn.; New London, Minn.; Audubon, Minn.; America, Dak.; Wilmot, Dak.; Tintah, Dak.; Laurens, Iowa; Hennings, Minn.; Rices, Minn.; Osburn, Dak.; Cyrus, Minn.; Craig, Neb.; Hurlinton, Dak.; and Davenport, Dak.



## Press Comment.

### WILL HAVE A DISASTROUS EFFECT.

The anti option law just passed in Missouri and approved by the Governor turns out to be very sweeping in its provisions. It was framed to destroy bucket shops, but it appears that it kills the big as well as the little gamblers. The real estate broker, the grain broker and the stock broker are jointly named. Unless it can be set aside as unconstitutional very disastrous effects upon St. Louis are predicted, as there must be a large shrinkage in the volume of business if this law is enforced.—*Indianapolis Journal*.

### CHARACTERISTIC ENGLISH COMMENT.

No one in Missouri is now allowed to "deal" in options in grain, the members of the legislature, headed by the president of the state, who is himself a miller, being of opinion that it is absolutely a crime to sell what one does not possess. Probably this step was taken with a view of showing the world upon what moral lines the commerce of Missouri is conducted, or it may be—we simply suggest the possibility—that the president has come off second best in some of his option "deals," and takes his revenge in the manner mentioned.—*Financial Times, London*.

### WILL INCREASE THE MARKET FOR CORN.

American corn promises to make an impression on the Europeans this year at the Paris Exposition. Our Corn Palace, with corn cakes, corn bread and mush, and canned corn to tickle the palates of the French and other enlightened people fond of good eating will increase the market for our corn. The introduction of our American corn as an article of food throughout the European countries will be a blessing to all classes. The wealthy will enjoy our hot corn cakes, hominy and mush, while the poor may grow fat on a few cents worth of cornmeal, and we are anxious to feed the hungry nations of the world.—*Western Agriculturist*.

### HAD OTHER SOURCES OF SUPPLY.

A Minneapolis miller is reported by a Minneapolis paper as saying: "Now, for instance, last fall wheat went up pretty high here. In consequence no flour was shipped to England. The people over there went on eating bread just the same, which plainly showed that they had other sources from which to get supplies, and were independent of us." The audacity of those English people in continuing to eat bread after the Minneapolis millers had declared that wheat was too valuable an article to grind on vulgar machinery, and that it ought to be stored and used as collateral to gamble on, deserves a severe rebuke. What's the matter with cake, anyhow, as a steady diet during a bull campaign?—*American Miller*.

### SHOULD CONFESS FIRST.

President Harrison has been petitioned to release E. L. Harper of the Fidelity Bank from the penitentiary. The petition should be returned to the signers with the notification that no attention can be paid to it till Harper makes a clean breast of all the facts connected with the wheat deal of 1837—till he has revealed the inside history and told just who his principals were. If the Standard Oil Company was mixed up in that corner, as many now believe, and went into it for the purpose of smashing or getting control of the Cotton Seed Oil Trust, it should be known. The President should not say to the petitioners that he will pardon Harper if he makes a full confession, but that he will not consider the case at all unless Harper shows his penitence by telling all about his rascality.—*Chicago Tribune*.

### WE MUST FEED EUROPE.

While crops are generally good in America, they are generally poor in Europe, and America will be called upon to make up the deficiency. It is not the first time that the people of Europe have been forced to look to the granaries of America for breadstuffs. The best physical force of all countries of Europe is called into the armies, leaving the tillage of the soil to decrepid old men and to women and children. Men in the Old World not in the military or naval service crowd the cities, so that the labor at command for soil tillage is insufficient. This is one of the primary causes of crop failure in Europe, and when to this is added the lack of improvement in machinery, and the want of knowledge of farming, the frequent failures there are not to be wondered at.—*Leavenworth Times*.

### IS REMINDED OF A STORY.

Judge Smith's management of the bucket shop injunction litigation reminds a member of a story. A blacksmith once upon a time took a choice piece of iron and undertook to make a plow out of it. He hammered and hammered away at it until he spoiled it for a plow. Then he said he would make it into a coultter. He hammered at the iron until he spoiled it for a coultter, and then started in to make a wedge. That was about the simplest and crudest thing the iron could be used for, but he scored another humiliating failure and spoiled it for a wedge. In desperation he then heated the chunk of iron to a melting point and threw it into his big water tank. "There, darn you," he said, as the hot metal disappeared with a hiss, amid a cloud of steam, "I'll make a sizz of you." The Board's attorney has made a "sizz" out of as pretty a case as a lawyer ever took hold of. He whittled

and whittled away at it until he whittled it down to a point and then whittled off the point.—*Chicago Daily Business*.

### ROBBED EACH OTHER.

The managers of the Buffalo Elevator Trust, who have been robbing the wheat-growers of the West for years, have taken to robbing each other, and a part of the rascally contingent has fled to Canada. This also appears to have been a case of the absence of "honor between thieves."—*Chicago Journal*.

### "CORNERS" ARE USEFUL.

"Corners"—those unduly-feared bugbears—are some times a result of special information received by heavy operators, but "corners" are useful institutions, no matter how much one may hear to the contrary. They are only possible in the face of presumed scarcity or famine; if the scarcity is over-estimated (as last autumn at Chicago), the "corner" is short-lived, and a direct result is to bring out unsuspected supplies to stock the market, and thus to bring down prices again, generally quite as much below the normal as the "corner" raised them. The "corner," therefore is not an altogether undesirable phenomenon. If it be successful, and prices are made unusually high, there is some reason in it, for a genuine scarcity is bound to bring high prices. And in this day and generation actual famine scarcity is so unusual as to lead to doubts of its being at all probable.—*Bradstreet's*.

### OPTION BUSINESS WILL CONTINUE.

The option business has become so deep-rooted in the operations of business men, especially with reference to speculative transactions, that it is quite problematical if it can be done away with and it is not clear that the legislation which has been had in Missouri will in fact effect the intended good. It will produce disorder and more or less inconvenience among those who have availed themselves of this style of speculation, and those who have acted as agents for principals in such transactions, while the inclination to gamble on the tendency of values of commodities will continue to find accommodations in some form. Too much of legislative interference with the privileges which people crave for, and especially intolerant consideration of liberty of action, while aiming at betterment of the condition of the people and of the community, is liable to become a most serious evil, even though it be sanctioned by a majority of citizens.—*Cincinnati Price Current*.

## WATERWAYS

The aggregate value of the lake marine under the American flag, according to Inland Lloyds Vessel Register, is about \$48,000,000.

The steambarge W. H. Haskell broke down three gates of a lock in the Welland Canal near St. Catharines, Ont., July 29, causing serious damage to the canal bank.

The Milwaukee Shipyard Company is building a steamer which will be used in the grain carrying trade of the lakes. She will be 236 feet long, and be able to carry 62,000 bushels of grain.

The dam at Sugar Grove, Ohio, which held in store a large body of water that supplied the lower levels of the Hocking Canal, gave way July 10 and the great volume of water swept through the valley doing much damage. The canal for a number of miles was badly wrecked.

On Aug. 1 the canal shipments of grain for this season at Buffalo had reached 15,249,190 bushels, which is 2,000,000 bushels more than last year. The receipts of grain by lake for the season were 35,411,559 bushels, against 27,720,410 bushels for the same period of last season.

The new lock which the United States is putting in at Sault Ste. Marie, Mich., will be 900 feet long, 100 feet wide, with 20 feet of water on the miter sill, and will cost \$4,000,000. It is the greatest work of the kind ever contemplated. A new cofferdam is being constructed which will cost \$250,000.

The United States is building a canal 3,000 feet long, with a draught of eight feet, at the cascades of the Columbia River in Oregon, which will connect the Lower Columbia with the forty-five miles of navigable water above that point. This will render the river navigable as far as the town of Dallas.

Up to the present time \$497,768.48 have been expended on the Hay Lake Channel work. The total amount necessary to finish the improvement is \$1,684,115, and General Poe has recommended that \$500,000 of this amount be appropriated for carrying on the work during the year ending June 30, 1891.

The annual report of Major E. S. Wheeler, superintendent of the Sault Ste. Marie Canal, for the fiscal year ending June 30, 1889, shows that 8,500 vessels passed through the canal during the fiscal year, carrying 6,932,203 tons of freight. The amount of wheat carried through the canal was 13,044,000 bushels. Since the canal was opened about 45,000,000 tons of freight have passed through, on which it is claimed the freight charges have been at least

\$300,000,000 less than the railroads would have demanded for the same traffic. The entire cost of the canal to date has been only about \$6,000,000 and the annual expense of operating it is not more than \$30,000.

There are about 700 men at work on the Nicaragua Canal and everything is progressing favorably. The terminus of the construction railroad at Greytown has been laid out and engineers' quarters are being erected around it. The people of both Nicaragua and Costa Rica favor the construction of the canal.

Captain Marshall says the route to the Mississippi River from near Chicago via the Illinois River, is the most favorable that exists for a water route, and that a seven-foot channel can be carried from the mouth of the Illinois River to La Salle, 100 miles long, for \$12,000. From La Salle to Joliet, where it will be less than forty miles from Chicago, the channels can be extended for \$3,500,000.

The annual report on canals in Canada has been issued. The revenue during 1888 shows an increase of \$11,000 over the previous year. The refund on grain delivered at Montreal was more than \$30,000. There passed through the Welland Canal 19,664 tons of grain in transit from United States ports on which there was no refund, and 160,358 tons of grain from ports west of Port Colbourne passed through the Welland and St. Lawrence canals.

General Poe, United States Engineer at Detroit, in his annual report of lake and harbor improvements, recommends the appropriation of \$1,235,875 for the prosecution of the work at Sault Ste. Marie during the fiscal year ending June 30, 1891. General Poe has recently compiled a table showing the freight rates obtained for all commodities by the lake carriers. He gives the average cost per mile per ton for last year as 1½ mills, which is 8-10 of a mill less than for the preceding year.

The Chicago Board of Marine Underwriters met July 18, and resolved that the arbitrary rate of commissions to be charged by all members of the board shall be 25 per cent. on steam and vessels in tow of freight steamers, and 15 per cent. on sail until otherwise ordered. It seems that some of the members thought that others were getting better commissions and the agents for outside boats complained that the agents were charging 25 and 30 per cent. commissions on steam craft, whereas they were only receiving 20 per cent.

It is reported that a new company is being organized in France for the purpose of completing the Panama Canal. The cost of completing the canal is estimated at \$200,000,000. About twenty-two miles of the canal was completed by De Lesseps' company, and about the same distance remains to be finished, upon which some work has been done. It is thought the canal can be completed in four years. In the neighborhood of \$500,000,000 have been already expended, and this vast sum, together with the valuable plant and franchise, will be a total loss unless the work is again taken up.

About 300 men are at present employed in constructing the Canadian Ship Canal at Sault Ste. Marie, Ont. The Canadian side has the advantage over the American in both the water power canals and the ship canals in the much shorter length necessary for the construction. The Canadian canal is to be 4,700 feet long, 18 feet deep, with a width of 145 feet. The lock is to be substantially such as is at present operated by the United States at Sault Ste. Marie, Mich. It will be operated by hydraulic engines and be 80 feet long in the clear, and 85 feet wide, with 18 feet depth of water on the miter sill. The lock will narrow so that the gates will be but 60 feet wide.

The Canadian Government proposes to expend \$12,000,000 in canal improvements, but there is much opposition to the move, especially by the newspapers, which give figures to show that the canals, and particularly the Welland Canal, is used more for American traffic. They show that in 1881 only 194 173 tons of freight between United States ports passed through the Welland Canal, while in 1888, 434,753 tons passed through, an increase of 125 per cent. On the other hand the tonnage to Montreal was less last year than seven years ago. The total traffic last year was 878,800 tons, one-half of which was between American ports. Eight years ago the purely American traffic was only one-third as large as that between Canadian ports.

The losses in vessel property for the first half of the season of 1889, or up to July 29, on the great lakes, was nearly \$600,000. The losses sustained on Lake Superior amounted to more than on any of the other lakes, the amount lost on that lake being \$284,000. Fogs caused more trouble than anything else, and of the thirty-nine boats that met with mishaps, twenty-one lay the cause of their trouble to fogs. The aggregate loss caused by these twenty-one mishaps was \$370,500, or nearly 80 per cent. of the grand total. Among the boats carrying grain that sustained losses were the propeller Dean Richmond, loaded with oats, and the schooner Hoboken, loaded with wheat. The former sustained a loss of \$7,000 on hull and cargo, and the latter a loss of \$1,000 on cargo.

Captain Marshall of the United States Engineer Corps in Chicago, has recommended the appropriation of \$1,285,000 for the improvement of Chicago and Calumet harbors. Of this amount \$172,000 is for building new and rebuilding old breakwater at Chicago; \$78,000 is for pier at Calumet; \$35,000 for deepening Calumet harbor to eighteen feet, to accommodate the large lake vessels, and \$1,000,000 for dredging a sixteen-foot channel in the Calumet River for a distance of sixteen miles. He also recommends that the United States secure absolute jurisdiction over the Calumet River for that distance. Captain



Marshall seems to think that eventually stationary bridges will be built across the Chicago River and that the heavy shipping business will be removed to the Calumet

The directors of the Chesapeake & Ohio Canal recently issued bonds to the amount of \$300,000, but no one would buy them, and it is very likely that the canal will soon go into the hands of a receiver. Five coupons have been passed without payment; the canal is worse than useless, and the salaries of the executive officials are running up



#### Bill of Lading—Reasonable Freight Charges Implied

A shipper sought to recover \$2,700 from a railroad company, alleging that such amount was charged over and above a rate agreed upon orally between the general freight agent and the shipper. The bill of lading in the case was silent as to the rate to be charged. The Supreme Court of Indiana held (Louisville, Evansville & St. Louis Railroad Company vs. Wilson) that where bills of lading are silent as to the amount of freight to be paid, the law will imply that the compensation shall be reasonable, and such as is ordinarily charged for like services under like conditions, and in the absence of fraud, concealment, or mistake evidence of an oral agreement is inadmissible to control such implied provision.

#### Contract for Future Delivery Valid.

The Supreme Court of the United States has decided that a contract for the sale of goods to be delivered a future day is valid, even though the seller has not the goods, nor any other means of getting them than to go into the market and buy them. But such a contract is only valid where the parties really intend and agree that the goods are to be delivered to the seller and the price to be paid by the buyer. If, under the guise of such a contract, the real intent be merely to speculate in the rise and fall of prices, and the goods are not to be delivered, but one party is to pay to the other the difference between the contract price and the market price of the goods at the date fixed for executing the contract, then the whole transaction constitutes nothing more than a wager, and is null and void under the statute.

#### Fire Insurance—Misrepresentation.

In an action brought by the National Mutual Fire Insurance Company vs. Barnes et al. to recover for the loss of a steam elevator, the Supreme Court of Kansas recently decided in favor of the defendants. The insurance company denied any liability on the ground that the title had been falsely represented and warranted to be in fee-simple, when in fact the building stood partly upon the right of way of a railroad. The answer alleged the company's agents to have had knowledge of the situation, and that they filled the blanks in the application after receiving a full and correct account and statement of the title to the land, etc. The court decided that an agent of a mutual insurance company authorized to issue a policy of insurance, and consummate the contract, and who is informed by the applicant that a part of the property is on the right of way of a railroad company, and with his own hand fills in the blanks in the application for a policy, and, with knowledge of the condition of the property, writes "Yes" as an answer to the question, "Do you own the land in fee-simple?" such act by such authorized agent waives for the company the stipulation in the policy that it shall be void if any misrepresentation be made as to the title or condition of the property.

The Saline County Plaster Company of Salina, Kan., have placed their order with English, Morse & Co. of Kansas City, Mo., for a complete steam plant, consisting of a 40-horse power Atlas Automatic Engine with steel tubular boiler, pump, heater, etc

Muscataine, Iowa, has a new \$10,000 elevator for oats. It is 60x40 and 75 feet high. It has nine large bins with a capacity of 20,000 bushels. It is equipped with separators, dust collectors and all the latest machinery. It is constructed of two-inch lumber and covered with corrugated iron.

### To Poultry Raisers.

The Complete Poultry Manual is a neat little work which is well worth reading by those interested in poultry, or by boys or girls who want to turn an honest penny. The price is only 25 cents. Sent postpaid on receipt of price. Address

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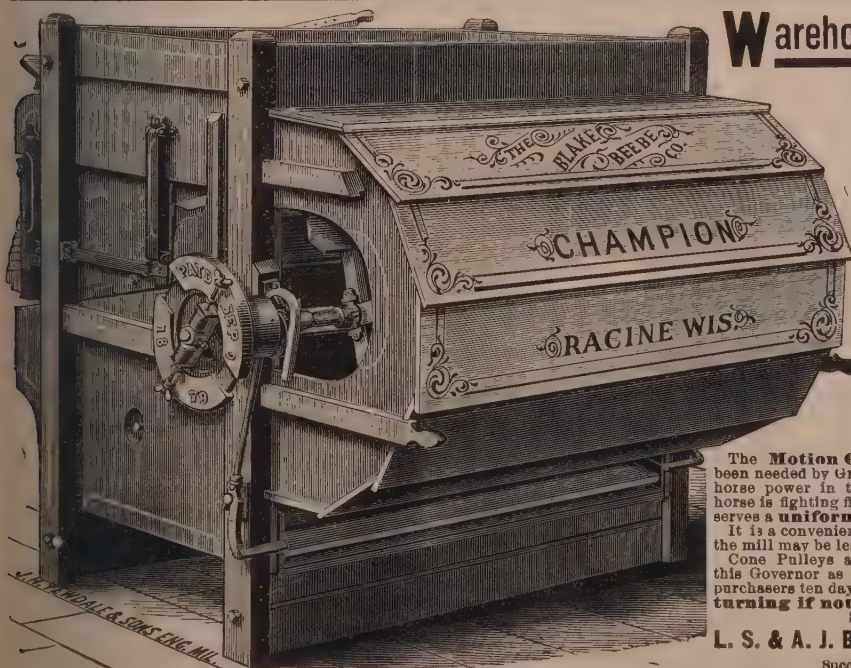
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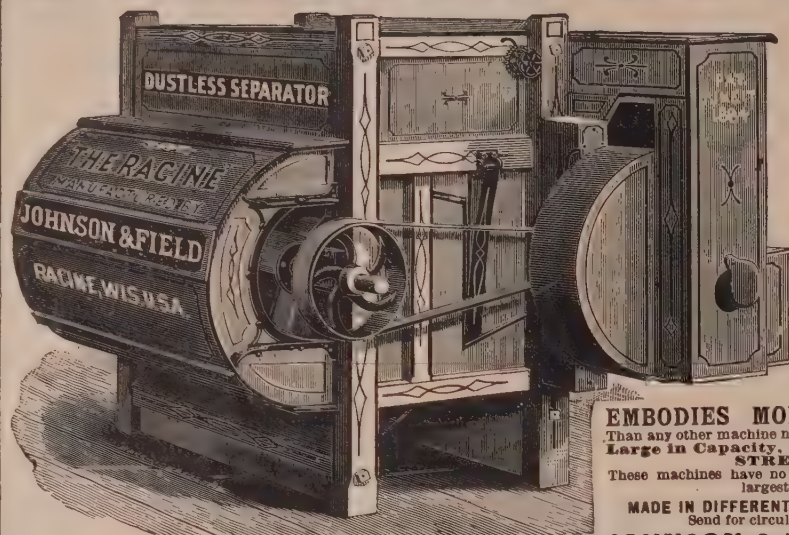
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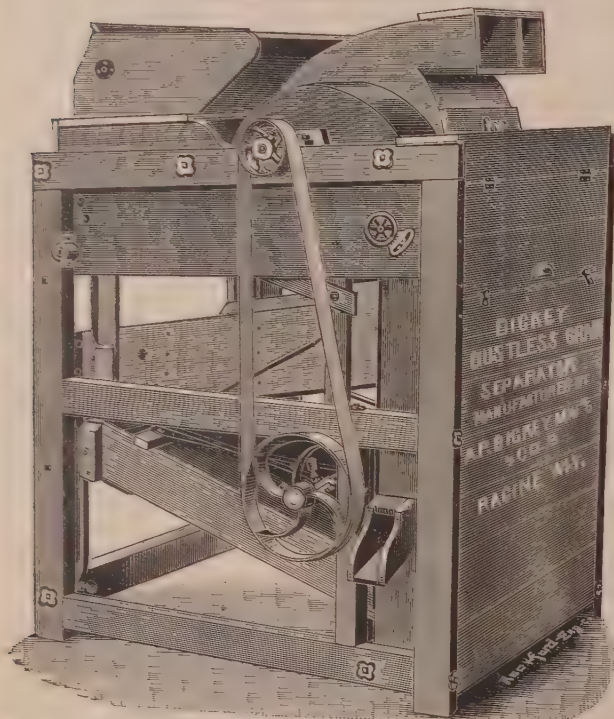
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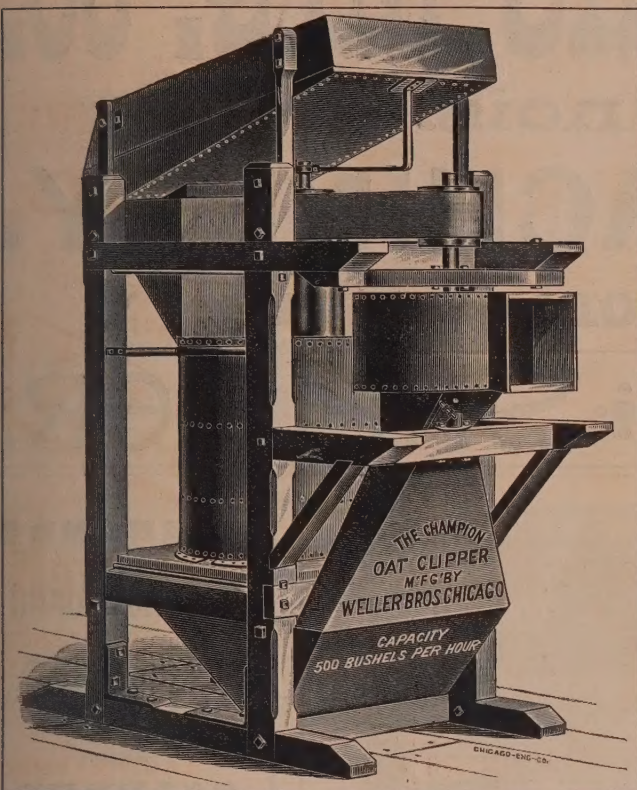


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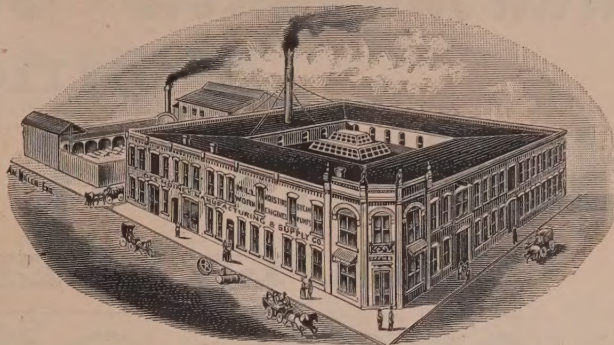
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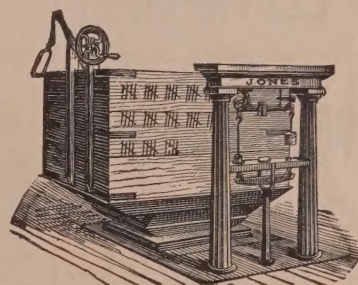
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A PERMANENT POSITION is offered in our office Address with References,

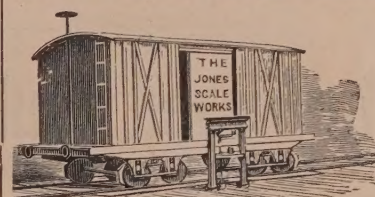
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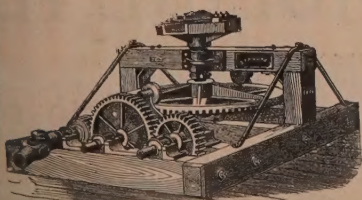
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ELEVATING AND CONVEYING MACHINERY A SPECIALTY.

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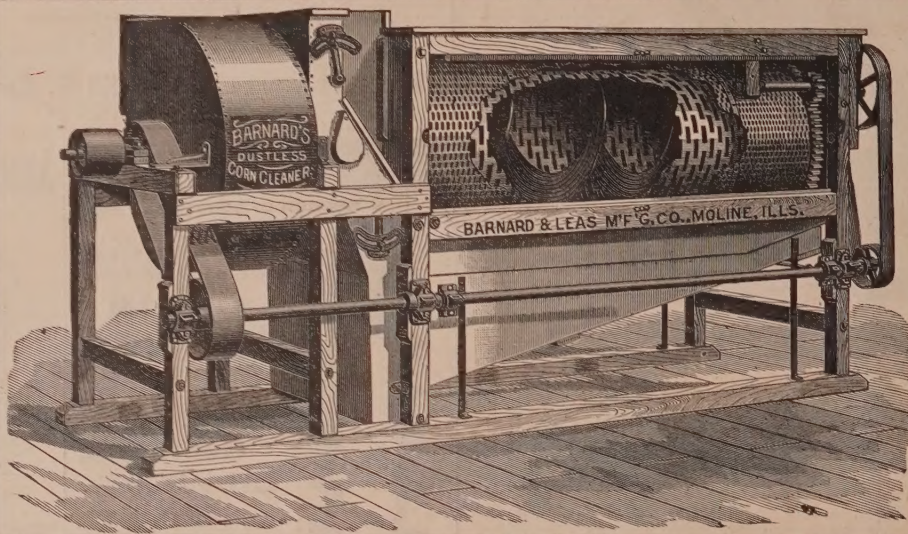
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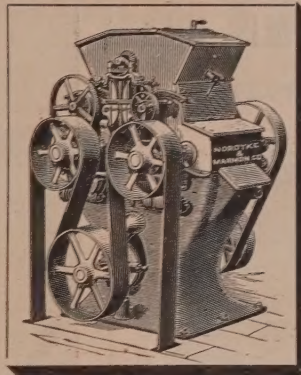
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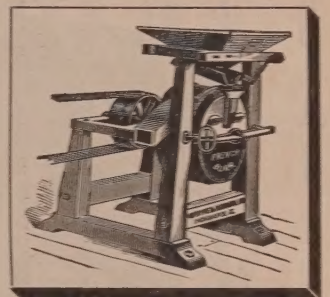


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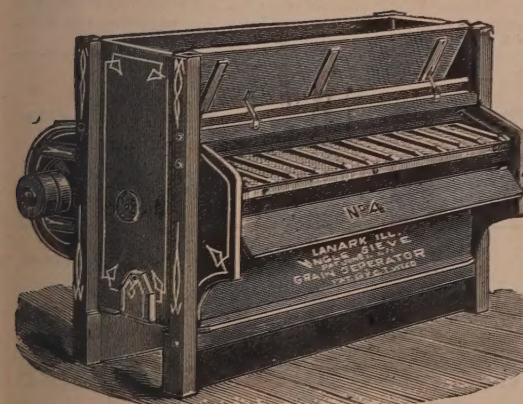
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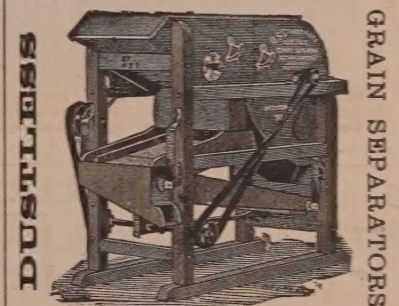
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 Address the Manufacturer,

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SHOWING ANGLE SIEVE

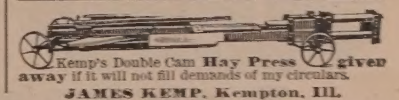
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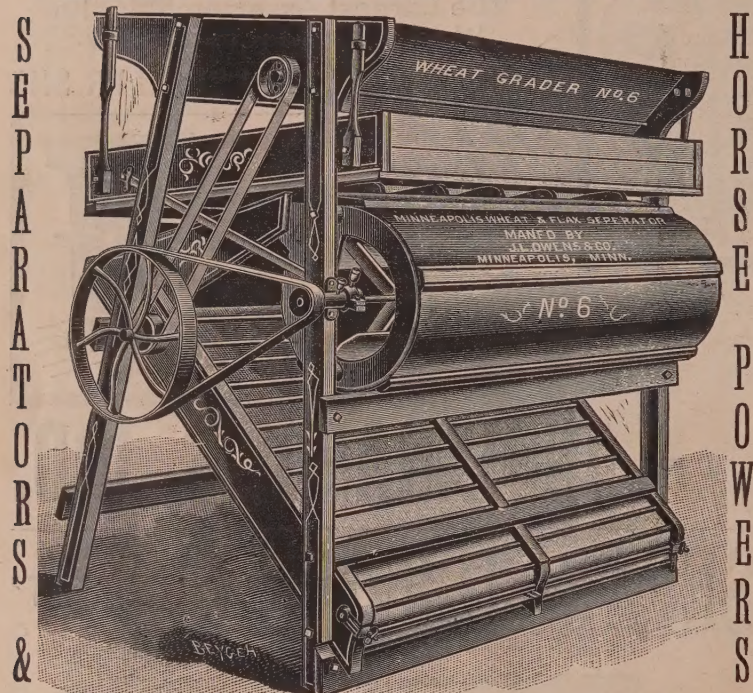
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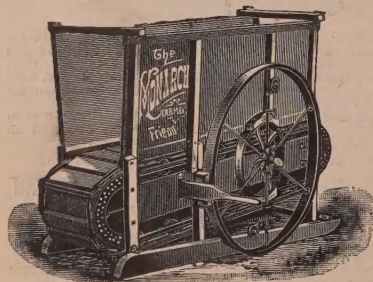
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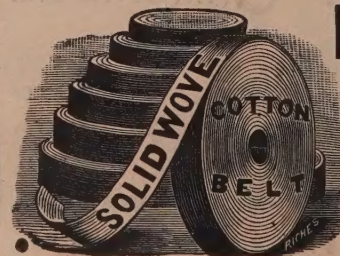
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